HOUSE OF COMMONS SESSION 1992–93

TRADE AND INDUSTRY COMMITTEE

COMPETITIVENESS OF UK MANUFACTURING INDUSTRY

MINUTES OF EVIDENCE

Wednesday 26 May 1993

Professor John Kay
Professor Colin Mayer
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TAKEN BEFORE THE TRADE AND INDUSTRY COMMITTEE

WEDNESDAY 26 MAY 1993

Members present:

Mr Richard Caborn, in the Chair

Mr Michael Clapham
Ann Coffey
Sir Anthony Grant
Dr Keith Hampson
Mr Adam Ingram
The Rt Hon Sir Cranley Onslow
Mr Barry Porter

Memorandum submitted by Professor John Kay (MC3)

FOUNDATIONS OF CORPORATE SUCCESS

Introduction

In *Foundations of Corporate Success,* published in March, I analyse and attempt to account for the performance of successful corporations, not only in Britain but around the world. My thesis can be summarised as follows:

— The success of firms is generally based on the identification and exploitation of *distinctive capabilities*—factors which one company enjoys and which others, even once they have recognised them, are unable to emulate.

— That these distinctive capabilities fall into four main categories—*innovation* (the most fragile of distinctive capabilities because it is the most difficult for firms to appropriate effectively for themselves), *reputation, architecture* (a structure of flexible trust relationships, most usually between a firm and its suppliers), and *strategic assets* (access to scarce resources, licences, regulation).

— It is rarely useful to take deliberate action to create distinctive capabilities because if this were not exceptionally difficult, they would not remain distinctive. More often firms do best to identify the distinctive capabilities which they have (and most have some) and maximise their value; firms should not be in markets where their distinctive capabilities do not add value.

In this note I draw on some material from the conclusions of my book to suggest issues that seem to me of particular relevance to the Committee's inquiry.

The Relationship between the Competitive Advantage of Firms and the Competitive Advantage of Nations

In an international trading environment, we can look to the competitive advantage of nations within the world economy as we look to the competitive advantage of firms within their commercial environment. The analogy holds only loosely. Just as large firms typically consist of many different operating businesses, which can maintain many distinct competitive advantages so nations encompass many different varieties of economic activity. Yet the ways in which value is added and appropriated by countries are sufficiently similar to the ways in which value is added and appropriated by firms for the comparison to be worth pursuing.

If competitive advantage is appropriately measured by reference to the performance of the marginal firm in its industry, the competitive advantage of nations is equally measured by reference to the performance of an economy which is marginal in relation to the industrialised world. One consequence of this benchmark is that for most countries of the world, added value is negative. A majority of the world population lives in these countries. This may seem a harsh judgement, but not necessarily an inappropriate one. It is simply an assertion that most world economics are making ineffective use of their resources of capital and labour. National economic and social structures are more likely to remain persistently value subtracting then corporate ones, because value subtracting companies eventually go broke. While there are some similar forces at work among nations, as the recent experience of Eastern Europe brings out, they are much slower and less effective.

The four factors of innovation, reputation, architecture and strategic assets are instructive in explaining this list but the balance among them is a rather different one. There are national reputations. The reputation for reliability established by many individual Japanese manufacturers may have attached itself to Japanese products as a generic category (and if, as is likely, the factors which make the achievement of high product quality relatively cheap for one Japanese manufacturer makes the same achievement cheap for all, this is a rational attitude for consumers to take). Swiss banks have a reputation for secrecy and security which appears to adhere to Swiss banks collectively rather than individually. American associations are important in the international success of Coke, Marlboro and McDonald's (Marlboro advertising emphasises this and Coke

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now seeks to play it down). But reputation is principally associated with the individual seller and returns to reputation accrue primarily at the level of the individual corporation.

Where innovation is very specific and appropriable then the value of the innovation is reaped by the innovator, and the contribution of innovation to national competitive advantage is broadly equal to the sum of the contributions of individual innovations to the competitive advantage of individual companies. The poor appropriability of much innovation, which works to the detriment of the creation of competitive advantage through innovation at the corporate level, often works to the advantage of the creation of competitive advantage through innovation at the national level. Although scientific knowledge observes no national boundaries as it observes no corporate boundaries, the transfer of expertise is always easier between those who work in geographical proximity to each other, meet each other regularly, share the same educational background, and speak the same language. In this way, the individual innovations which form part of the competitive advantage of individual firms in the United States, Germany and the UK—countries with strong scientific capabilities and traditions—create a national competitive advantage which adds up to substantially more than the sum of its parts.

Often this creates an innovative *architecture,* and architecture is a competitive advantage which is of even greater importance for the nation than it is for the firm. The benefits of architecture are very clearly apparent in the mutually supporting networks of firms which can be observed in locations, and industries, as different as California's Silicon Valley, the Italian knitwear industry, the City of London's position in financial services, or the Keiretsu of Japan. Despite the diversity, the similarities between these structures are equally apparent. Each is a network of implicit contracts. Each achieves flexibility in response and the ready exchange of information which the existence of sustained informal relationships makes possible. Each links commercial and social activities in ways that raise sharply the penalties for opportunistic behaviour.

If architecture is often a prime source of national competitive advantage, its absence can also be a prime source of national competitive disadvantage. The absence of a structure of trust relationships, the inability to enter effectively binding commitments and an expectation that those who can behave opportunistically well, are all very recognisable features of the economic organisation of poor countries.

National Assets and National Competitive Advantage

Strategic assets are an important source of national competitive advantage. It is relatively rare for a corporation to lay exclusive claim to scarce factors—whether a broadcasting licence or a national resource—but common for a country to do so. A country like Kuwait derives its competitive position entirely from this source, and the experience of Kuwait raises questions of the appropriability of national competitive advantages.

Historically, patterns of industrial activity were very heavily influenced by access to scarce natural resources. The industrialised centre of the Ruhr developed in proximity to its coal and iron reserves. Trading and industrial activities developed around the great natural harbours of the world. In the textbook analysis of competitive advantage, it was climatic factors which gave England its strength in textile production and Portugal's in vinification. Today, these natural resource activities are much less significant proportions of overall industrial activity and many of the world's most successful economies are very poorly endowed with natural resources. The scarce factors that influence national competitive advantages today are more often the range and variety of skills to be found in the workforce.

One of Germany's identifiable capabilities is a labour force with much higher levels of general scientific education and attainment than are available in most other countries. Although this forms a central part of the competitive advantage of German companies and explains their strength in industries as different as high performance automobiles and fitted kitchen manufacture, relatively little of that benefit appears as added value in the accounts of German corporations. The reason is that in each industry and across the German economy as a whole, there are many German firms competing for the opportunity to exploit that competitive advantage. Hence the returns to it go to the scarce resource—the German workers themselves—rather than to those who facilitate its exploitation. Because there are not so many German firms in any of these industries—Mercedes, BMW, Audi in automobile manufacture; Poggenpohl, Bulthaup in kitchens—some competitive advantage remains with them, but the wealth created by their activities is mostly in the pay packets of their employees.

An appreciation of the role of architecture and exclusivity helps in understanding the "clustering" phenomenon which is correctly stressed in Porter's (1990) discussion of the competitive nature of nations. This notes the tendency for powerful firms in the same industry to be found in the same country—whether it is the auctioneers of the UK, the tile makers of Italy, the kitchen manufacturers of Germany, the optical firms of Japan, or the investment banks of Wall Street. Porter's discussion overemphasises, however, the role of technical factors in this phenomenon. A supporting infrastructure certainly sustains these clusters. But their origins mostly lie in architecture, or in access to scarce factors. The competitive position of the City of London, for example, is based principally on its networking, and shared services have developed as a consequence of that. The competitive position of German kitchen manufacturers has developed because the

national competitive advantage—the ability to recruit highly numerate production line workers—which is a competitive advantage for one is a competitive advantage for others too. Often, as in Silicon Valley, these two forms of competitive advantage are combined.

THE RELATIONSHIP BETWEEN CORPORATE STRATEGY AND COMMERCIAL SUCCESS

It is easy to see why the military analogy continues to exercise such a powerful hold on thinking about corporate strategy. What boy (and most chief executives are men) has not dreamt of destroying his opponents with his new technology or his ingenuity? What youth has not identified with the great field generals of history, alone with their troops, placing divisions here, battalions there, and inspiring their men with heroic feats with a few well chosen words of encouragement and inspiration?

There is something in the military analogy, of course, but it is misleading as it is helpful. It is, I believe, directly responsible for two of the most widespread fallacies in the interpretation of business behaviour and economic performance. One is the almost universal overestimation of the importance of size and scale. Modern warfare is based on the destruction of opposing forces. Success derives directly from the power to impose such destruction on others and the capacity to bear it oneself. The United States was the almost inevitable victor in the two world wars this century, because of its resources of men and materials that were essentially limitless relative to those of its opponents. Observe the defeat of Europe's two greatest military machines, those of Hitler and Napoleon, by the vast inhospitable scale of Russia, the worst governed of European countries.

Business is not like that at all. Success in business derives from adding value of your own, not diminishing that of your competitors', and it is based on distinctive capability, not destructive capacity. Distinctive capability becomes harder, not easier, to maintain as size increases. Yet in descriptions of both business and public policy, the equation of scale, power and effectiveness is often simply assumed. Nowhere is this more apparent than in discussion of Europe after 1992, where the effects of integration are repeatedly described in terms that would be appropriate to a military alliance.

> "Separately, each nation represents only a statistical blip in global accounting. But united as the EC they become an economic powerhouse that dwarfs Japan and directly challenges the heretofore unchallengeable economic output of the United States"—M Silva and B Sjogen (1990).

The generalisation from the military to the economic sphere is often assumed to be so obvious as not to require specific elaboration.

But it is wholly false. While military strength is directly related to the scale of resources that underpin it, economic strength (whatever that means) is not. If economic strength is competitiveness—and it is hard to see what else it could sensibly mean—then the competitiveness of European economies is related to the aggregate size of the resources of labour, capital and other factors in the European economies only in the most tenuous and indirect of ways. A "home market of 320 million people" in no sense resembles an army of 320 million people in the service of European industry. Yet the phrase is used in ways that invite precisely that comparison.

The loosely formulated analogy distracts attention from the real benefits of European integration. These come from specialisation—the ability to deploy specific distinctive capabilities more readily in different geographic markets. The metal workers of Lumazzone illustrates the opportunity well. They are now able to use their particular skills in a global rather than a national market and hence sell greater volumes and obtain higher price premiums in markets that are better served than before. And there are substantial gains from integration through the introduction of competitive forces into sectors of European industry where efficiency has survived because of regulation, public procurement rules or other protectionism.

The second area in which the military analogy misleads is inviting excessive emphasis on leadership, vision and determination. Military history abounds with stories of heroism in the face of adversity—Horatio on the bridge, Custer's last stand, the charge of the Light Brigade. It is easy to see why these images are important in a military context. But if General Custer or Lord Raglan had been businessmen, we would not wish to have been their employees or to have bought their shares, and I would not myself have wished to invest much in Horatio either. Fighting against overwhelming odds may sometimes be a necessary military strategy. It is almost never a sensible business strategy.

This perspective relates directly to the rationalist view of strategy which sees it as something devised for the corporation by its most senior executives. It is commonplace for them to distance themselves physically from the organisation to contemplate strategy in weekend retreats. They return refreshed and inspired, to mould the company in the light of the strategy they have conceived. Strategy is something which is imposed on the company, and the chief executive is the man who imposes it.

The Anglo-American business environment has particularly developed this personalisation of the role of the chief executive, who has come to enjoy the status of the commanding general. His authority is (for so long as he remains in office) unquestioned. The vision of the organisation is his. His primary task is to frame that vision and to inspire his staff and employees with it. If a new chief executive takes the helm, it is possible,

indeed often expected, that this will lead to a change in the strategic goals of the firm. A business school case in strategy will characteristically feature a named CEO struggling, frequently alone, to resolve the fundamental issues of his company's strategic direction. The focus on issues of leadership and the management of change in courses and seminars for senior executives follows directly from this view of the world.

The emphasis on merger, acquisition, divestment and the management of the corporate portfolio in the business environment of English-speaking countries is a closely related phenomenon. These mechanisms are the fastest and most effective ways of engineering changes in strategic direction and accomplishing strategic goals. It is quite common to encounter senior executives who see the question, "What should our strategy be?" as virtually interchangeable with the question, "What companies should we buy?".

The views I have described are the product of the ways in which the subject of strategy has been pursued in the last three decades, principally in the United States. They also reflect the financial systems of these countries, which emphasise equity investment and allow hostile takeover and the free operation of the market for corporate control. But this approach is not shared in Japan—as has often been noted, the Japanese find the rationalist model of strategy a peculiar one. Nor has it been pursued to the same degree in much of continental Europe. In France, however, the PDG has increasingly come to enjoy the same role as the American CEO, and the dramatic surge in acquisition activity by French companies is a close consequence. A Japanese manager who had proposed in the late 1980s that shareholder value would be enhanced by breaking up the corporation and disposing of its assets (as would often have been the case) would have been regarded in much the same light as the new master of an Oxford college who, observing that the historic buildings were quite unsuitable for the needs of modern education (as they mostly are), proposed that they be sold and the proceeds invested in new purpose-built facilities. Each of them would be seen as the victim of a misunderstanding of what it was their job was about, and of the purposes of an organisation for which they are trustee as well as manager. Outside the English-speaking world, the corporation is seen in an organic rather than an instrumental way, as an organisation with a personality of its own, character of its own, and its own internal purposes and dynamism.

The Distribution of the Proceeds of Corporate Success

This dichotomy is reflected in the ways in which added value is created, and the ways in which it is distributed. The United States is at one extreme. Appropriation of added value for shareholders is seen as the principal, even the sole, objective of the corporation. This position has legal support and is enforced, in practice, through the threat of takeover. in Japan, at the opposite end of the spectrum, managers see shareholders as only one of a number of stakeholder groups, and by no means the most important. Odagiri, explaining why mergers and acquisitions are not an important component of the strategies of Japanese corporations, brings out this difference, and its consequences, clearly:

> "The executives of Japanese firms are mostly internally promoted and are less constrained by the stock market's valuation. Corporate growth is appreciated and sought after primarily for its contribution to utilising the enriching human resources and in creating promotion opportunities. Obviously, only internal growth contributes to this purpose—workers identify their interests with those of the company which, as a consequence, is regarded as a sort of community. Any offer to acquire the company is therefore likely taken as an intrusion—because labour practices are in many ways firm-specific, unifying the practices of two different firms tends not only to be costly but also to create uneasiness and conflicts of interest" (1991, p. 106).

The paradox in this comparison, of course, is that the different objectives of Japanese managers do not appear to have worked to the detriment of investors in Japanese securities. Despite low dividend yields on Japanese shares, total returns from investment in Japan have been outstanding in the long-term. An exclusive preoccupation with the interests of one stakeholder group may not serve the interests even of that group if it inhibits the formation of relational contracts within the corporation. In US companies, by contrast, strategic bargaining between stakeholder groups is assumed to be central to all commercial activity. Such bargaining took a new twist in the 1980s when senior management appreciated that, given the high costs of removing them, they themselves could negotiate for a material share of the added value created by the firm. The extreme case is the well documented case of Ross Johnson of RJR Nabisco who, not content with surrounding himself by corporate jets and America's leading sportsmen, attempted to restructure the company to yield £100 million for himself.

In all this, European business lies, as it often does, between the other two members of the triad. Britain's financial markets, and systems of corporate governance, are close to those of the United States. Italy, in which a large part of effective business is conducted in smaller firms in which proprietorial influences are dominant, occupies rather different ground, while France and Germany pursue the "Rhenan model" described by Michel Albert, in which the firm is perceived as operating within a wider social context.

A central theme of my book is that competitive advantages are generally based on stability and continuity in relationships. How is that need to be reconciled with the equal need for change and flexibility which confront every organisation in business today? If there is a single central lesson from the success of Japanese

manufacturing industry, or from Benetton, or from many other of the cases developed in my book, it is that the stability of relationships and the capacity to respond to change are mutually supportive, not mutually exclusive, requirements. It is within the context of long-term relationships, and often only within that context, that the development of organisational knowledge, the free exchange of information, and a readiness to respond quickly and flexibly can be sustained.

So the most important challenge for European business is to maintain, and enhance, those competitive advantages which are based on architecture. Of the three major economic areas of the world, one—North America—has developed a business culture which offers little support for structures of relational contracts, and the competitive advantages of US firms are mostly to be found elsewhere—in innovation, in branding and reputation, and through the exploitation of strategic assets. Firms in Japan and the Far East have made much of the sources of competitive strength which I have identified with architecture. Yet the pressures on European companies are principally to move in a trans-Atlantic direction. This is reflected in an increasing pace of merger and acquisition activity, a more American approach to corporate strategy, and a more aggressive business environment characterised by tighter financial controls, more specific monitoring of performance, and less emphasis on long-term relationships with contractors or with employees. In public policy, and in business policy, the potential losses from these developments far outweigh the potential gains.

The foundations of corporate success are built on the identification and exploitation of distinctive capabilities. The distinctive capabilities of Glaxo and of Benetton, of Reuters and of BMW, could hardly be more different. They have little more in common than their distinctiveness. And there is a general lesson here. The search for generic strategies, for recipes for corporate success, is doomed to failure. There can be no such recipes because their value would be destroyed by the very fact of their identification.

Finance and Corporate Strategy

Architecture is of particular importance in financial services. Those who finance an activity need to monitor both the size and nature of the risks they assume and the honesty and competence of those who manage them. Those who are responsible for the activities have incentives to distort the flow of information, to understate the risk, and to overstate the performance. These issues have been raised at several points in the analysis of relational contracts and of architecture.

One common response is to impose extremely detailed classical contracts. Mostly this does not work well. The main consequence of the strict liability which attaches to statements directors make in company prospectuses is that those prospectuses contain little useful information. And classical contracts bind you only to the specifics of the contract, not to their objectives. Relational contracting is a better alternative, and that is why financial institutions often talk about relationships, even if they are rarely achieved.

In Britain, relational contracts work well within the financial services itself, and form the basis of Britain's competitive advantage in financial services. However, there are few relational contracts between the financial sector and the industrial sector. Banks have traditionally lent principally on the security of assets rather than their knowledge of business; equity investors hold small stakes and are positively reluctant to be made "insiders", privy to information not available to the public at large.

Germany, by contrast, has no comparable strengths in financial sector but does have a very different style of relationship between finance and industry, where both parties have no doubt that they are engaged in a repeated game. It is often suggested that this gives German firms a better system of corporate governance and a greater willingness to undertake, and to invest in, long-term activities. Japan has similar banking relationships and networks of cross holdings of shares between companies. Sweden has a particularly intricate structure of financial relationships between its banks and its industrial companies, centred around the Wallenberg group.

It would be naive to engage in financial transactions on the basis of relational contracts alone. There are many trusting paupers. Nor are all financial services, even successful ones, based on relational contracting. Michael Lewis' description of Salomon Brothers is a caricature of an organisation with a strong culture but no architecture. It should be noted, however, that such a style of operation is associated with activities, such as bond trading, which are concerned with the appropriation of added value but which create virtually none. But real financial architecture may contribute to competitive advantage either, as in Britain, in the financial services sector itself or, as in Germany, in the contribution the financial sector makes to economic activity more generally.

Industrial Policy and Corporate Strategy

Two of the commonest mistakes in corporate strategy are "wish-driven strategy"—strategy based on a statement of aspiration which is developed with insufficient regard to the company's distinctive capabilities—and "copycat strategy"—the belief that the road to success is based on emulating the successful, something which my emphasis on distinctive capabilities emphasises cannot be effective. These are hardly less common mistakes of governments.

The principal European powers had each sponsored domestic computer manufacturers like ICL in the UK, Siemens-Nixdorf in Germany, and most of all Groupe Bull in France. Wanting to be IBM is not enough to make you be like IBM, and wanting a national champion is not enough to guarantee success. No document epitomises wish-driven strategy more clearly than the Ryder Report, prepared for the British government in 1975 after British Leyland's financial collapse. Starting from the premise that it was essential for Britain to have a major volume car producer, it set out targets year by year for sales, revenues and investment towards that goal. None of this bore the slightest relationship to reality either in prospect or in retrospect. Willing the objective is not enough.

The failures of wish-driven strategy are of two kinds. There is the hopeless aspiration of Groupe Bull. And there is the Pyrrhic victory of Saatchi & Saatchi, where the objective is achieved but at a cost that renders it futile. If Leyland illustrates the first, exemplars of the second abound—most of all in France, where magnificent but uneconomic projects are found in transport, energy and almost every industry in which the state has played a central role.

Copycat strategy fails to establish competitive advantage for the firm. It fails partly because it is difficult to know which are the essential and which the peripheral aspects of the success of the firm or group of firms to be emulated. It fails partly because of the efficient market problem. If everyone can do it, it ceases to offer competitive advantage, or profit, to anyone. Copycat strategy fails for the nation for the same reasons. It would be foolish not to turn to other countries and hope to learn from their success. But it is fatuous to look to Japan, or another feared competitor, and believe their achievements can be replicated by adopting some fashionable selection of Japanese practices. Nor is it clear that if western firms were to achieve Japanese cost and output levels in markets like cars and consumer electronics, where leadership has already been lost and where Japanese distinctive capabilities are evidently particularly productive of competitive advantage, that there would be much profit in it for anyone. Learning from the experience of others must be a more sophisticated process.

The lesson for countries, as for firms, is that economic success comes not from doing what others do well but from doing what others cannot do, or cannot do as well. The competitive advantage of nations is equally built around distinctive capabilities, mostly on the exploitation of architecture and strategic assets. There is space here only to illustrate some of the distinctive capabilities of Europe and European firms. Europe has built up since the Renaissance an organisational knowledge which leads to continued dominance by European countries and European firms of almost every market in which fashion, design and style are critical attributes, markets ranging from furniture to quality clothing. The high standard of mass education in most European economies—notably Germany—is a powerful strategic asset. Architecture is key to competitive advantage in financial services. This is particularly strong in Britain, although in some other European financial centres the complacency and exclusiveness which are often a disadvantage of powerful architecture have inhibited competitiveness. The intermediate time zone turns out to be an unexpected distinctive capability which gives competitive advantage in financial services. Britain holds title to one of the most potent of proprietary standards—English language—and this is not only the basis of competitive advantage in entertainment and education but in related manufacturing industries as different as publishing and sound mixing equipment.

These examples are taken to illustrate the key differences between an approach to industrial policy that stresses the exploitation of distinctive capabilities and that which has characterised most European economies—whether to address weakness, or reinforce strength. The disappointing performance of many European volume manufacturing industries has led to state support of industries like steel, volume textiles, and automobiles, to no long-term effect. It has bred an emphasis on technology which is directed not at those industries, like pharmaceuticals, in which European companies have been successful in achieving commercial applications of their innovative capacities, but to those, like electronics, in which they have largely failed. Competitive advantage through technology requires the support of complementary assets, and you must concentrate your efforts in areas where you have these, not those where you do not. Industrial policy for nations, like competitive strategy for firms, begins from distinctive capabilities.

An industrial policy which reinforces strengths rather than compensates for weaknesses should not be confused with "picking winners"—identifying successful firms, or sectors, and providing them with resources. Where firms have competitive advantages themselves, national competitive advantages will generally follow. The scope for industrial policy lies in the areas where that is not the case—where there are divergences between the competitive strengths of firms and the competitive strengths of countries. Sometimes firms find it difficult to appropriate the competitive advantages they create, or might create—as with pre-commercial research. Sometimes national competitive advantages exist which firms cannot fully appropriate, or appropriate at all—organisational knowledge or management, or the skills of German workers. It is in areas such as these—basic research, education, training—that industrial policy can help to secure competitive advantages both for firms and for countries.

21 May 1993

Examination of Witness

PROFESSOR JOHN KAY, Professor of Economics, London Business School and Chairman, London Economics Ltd, examined.

Chairman

1. Professor Kay, thank you very much for coming to the Committee this morning. We have read with great interest your submissions, and one or two of us have also read your little booklet sent round by the ESRC.

(Professor Kay) On the innovation and technology side, yes.

2. That is a potted version of the memorandum you sent in. Thank you very much. Can I start, therefore, by asking what do you regard are the areas in which the United Kingdom, or indeed United Kingdom firms, have distinctive capabilities?

(Professor Kay) I think there is a variety. There are two or three which I pulled out, and I think you are probably most interested in the ones that relate to manufacturing—well, I know you are most interested in the ones that relate to manufacturing industry. One aspect of this is our strength in areas that revolve around the use of the English language, which is, actually, a particular British distinctive capability. That lies behind strength in an odd variety of areas which range not only from education and media but to the manufacturing industries that are actually related to and are supportive of that, of which publishing, sound mixing, graphic design and support for that would be an example. Perhaps more importantly, I think if one looks at distinctive capabilities in terms of the skill bases we find in the United Kingdom, we have distinctive capabilities in relation to the quality of our elite education—what we do at the university level of scientific work is comparable with the best anywhere in the world—whereas where there is quite a lot of evidence we are relatively deficient by the standards of our competitors is in levels of scientific and technical training, rather further down the distribution. I think that is something that is reflected quite strongly in the ways in which British manufacturing industry does and does not have competitive advantages; that we have competitive advantages in pharmaceuticals, for example, which are reliant on what I am describing there as elite science—distinctive capabilities there. We also have, in relation to the more high-tech side of electronics defence equipment, these sorts of areas again, areas where Britain is very successful.

3. Can I ask, against that background, Professor Kay, does inward investment—and especially Japanese inward investment—affect that picture you have just painted?

(Professor Kay) I do not think it does all that much. There is a particular capability which we have lacked, and some of these other countries have enjoyed, which is the effective management of large scale process activities, production-line type operations. In terms of my analysis and my emphasis on distinctive capabilities, that in turn relates to something which I would think of as the structure of relationships within different countries. If one looks at the extreme end of how these things are done in Japan, it is partly a different style of corporate structure in which there is a great deal more identification, both at the level of management and at the workforce with the company as an activity—an on-going entity—whereas we recognise the conflicts and the much more transient nature of the commitments which are made both by management and by workers to particular corporate structures in the United Kingdom. So that is part of the difference there. There is also an important part of the difference in terms of these structures of relationships between the firm and, particularly, its suppliers, which again has been a strength of, for example, Japanese business in enabling it to achieve very high levels of reliability, in enabling it to concentrate on just-in-time inventory management, in enabling it to shorten the model cycle—really, by sharing information between firms and their suppliers. So it is the distinctive capability which I have called "architecture", emphasising structures of relationships which are valuable in certain kinds of manufacturing at which Japan has been particularly strong and at which we see some strengths in some of our continental European competitors like Germany, and at which Britain and the United States are very much more less effective. We have much more individualistic styles of relationships, and I believe these styles of relationships feed into countries' competitive strengths and weaknesses.

Sir Anthony Grant

4. A little earlier on, Professor, I thought I heard you say that one of our defects was that we were—compared with our competitors overseas—deficient in education and training on scientific and technological bases. Is that right?

(Professor Kay) What I was emphasising there was a distinction between what we do at what I call the "elite" level, at big, international science at universities, at which I think we are good, and lower level scientific and technical training.

5. I wonder if you could just comment on this: in recent times I have heard two very depressing statistics. The first depressing statistic is that the British watch television more than any other country, but I do not expect you to comment on that. The other equally depressing statistic is that we train and qualify more people as accountants—far more than in any other of our competitive nations. Do you think there is any significance in this?

(Professor Kay) I think there is a bit. If I might pick up on both your observations, one of the reasons we watch more television is that British television is good and British television is an effective international industry for Britain. So I think that does come back to distinctive capability. But to put that to one side for a moment, as far as the training in accountancy is concerned, I believe a principal reason for that is that, as far as Britain is concerned, by default, accounting is the principal kind of business training we have. If you go to the United States you see the massive professional type business training in business schools; if you go to Germany you see business training done largely as part of

[**Sir Anthony Grant** *Cont*]
people's undergraduate education; if you go to Japan you do not really see either of these things but you do have long service in large companies who see training within the company as very much part of what they do. If you ask how do people train for business in the United Kingdom then the normal way people do it when they graduate is to go and be an accountant. Accountancy is not a bad business training but it is a rather one-sided business training, and there are a lot of things that that leaves out. I think that is part of the reason why we place such strong emphasis on finance at the top of successful British companies, and why such a high proportion of our senior executives have an accounting and finance background rather than a technical and engineering one.

Mr Clapham

6. Professor Kay, could I just take you to page 9 of your memorandum and through the paragraphs there, particularly at the beginning and the first two sentences of the third paragraph on that page. Are you really suggesting there that we should abandon volume manufacturing in Europe in such industries as motor vehicles, electronics, etc., in which you think we do not have distinctive capabilities?

(Professor Kay) I am not suggesting we should abandon it—that would be to over-dramatise—but I am suggesting that they are not the areas we should actually try and put our muscle behind. My view is very much that we should be trying to support strength rather than weakness.

7. And which actual industries would you see the European strengths lying in?

(Professor Kay) I gave one or two examples when I began of not only European strength but particularly British strength. Let us take pharmaceuticals, for example. That is an industry in which it seems to me we do have a substantial competitive advantage and it is an industry in which it seems to me we have not succeeded in a number of ways in making the most of that national competitive advantage. If you look round Europe, for example, a striking observation is that pharmaceutical prices are much higher in Britain and Germany which have substantial pharmaceutical industries and where the Government sees a need to support them than they are in France and Italy which are relatively weak industries in these sectors. What we have in effect been doing is allowing the French and Italians and a number of other countries to freéride to a large degree on our research and our capabilities in these kinds of areas. I believe that a trade policy, for example, that is emphasised at maximising the support we give to Britain's successful sectors is very much what we ought to be aiming at. Now in a way that comes to more fundamental issues, it seems to me, in relation to the scope of your inquiry and the issues with which you are concerned, but if you ask what has happened in terms of liberalisation of the international economy which I am all in favour of, we have seen very dramatic liberalisation both in Europe and around the world in terms of trade involving manufacturing which I am suggesting has very often not been a British competitive strength, whereas we have seen very little of that liberalisation in relation to a range of industries which are British competitive strengths. We have been in the EEC for twenty years now, for example, and very little has happened in terms of liberalising financial services across Europe. In effect we have allowed these negotiations to be hijacked by people who have other competitive disadvantages than us.

8. But if you are saying we cannot strengthen the weaknesses, and we cannot use innovation in that particular way, is not that a rather static model?

(Professor Kay) I am not saying we cannot, and in the long run clearly there are ways we can try and address some of these problems. I have talked, for example, about a serious disadvantage in holding manufacturing being the lack of these scientific and technical skills—the skill and ability distribution. Now that is something we can rectify in the longish term although it must be said it is a problem which most people have talked about for one hundred years without us succeeding in doing very much about it, but clearly we can do something to rectify that in the long term. I think the idea however that we can compensate for that in the short run by Government's support for industries that are competitively disadvantaged by that particular aspect is a mistake. If I can take an analogy, if I am a good economist but am pretty bad at co-ordinating bat and ball (as I am), the right thing for me to do is decide to be an economist rather than to devote a lot of time to improving my skills at cricket.

Chairman: Your next door neighbour might be able to play with the bat and ball and that is the bit we are looking at.

Sir Cranley Onslow

9. Following that line, you are saying there are some industries we should get out of by implication?

(Professor Kay) Yes.

10. Or be content to be pushed out of some industries?

(Professor Kay) I am not saying that but I come back to the issue that our primary concern should be to reinforce our strengths rather than to compensate for our weaknesses. We have been pushed out of consumer electronics, for example, and I doubt if it is realistic to get back in a substantial way. I do not think it is likely it would be a very profitable activity if we did.

11. People active in those areas may take their own views whether they can compete or not, but do you think the Government should consciously withdraw support from or refuse to back industries which are doomed to fail?

(Professor Kay) I am sure it should back industries that are doomed to fail.

12. Have you any examples?

(Professor Kay) I think the two largest industrial policy issues of the last six months really have been what we should do about Leyland Daf and what we should do about the future of British mines, and both of these are activities where the force of my approach would say we should really give nothing except conditional support. My analysis would say that we should give nothing except transitional support. These are industries and activities which we should not aim to be supporting in the long run.

Dr Hampson

13. Could I test this proposition which seems to me to be rather glibly trotted out by every commentator? You can find it in every newspaper and it has been the long run one which is that where we are lacking this general scientific education as against the notable example always cited of the Germans, it is not true in the United States, is it? There is the world leading manufacturing nation and American school kids certainly do not come up with a general scientific background like the Germans, do they?

(Professor Kay) It is not true in that comparison with the United States, but I think we find the United States' comparative advantages and disadvantages not so different from ours. We have seen the same kind of decline in manufacturing as a proportion of their total economic activity and we have seen them being pushed out of rather similar markets to the one in which our firms have been encountering difficulties.

14. It would seem to me you could argue it is the structure in the American car industry and management. It is not necessarily the quality and training of the workforce that that would be true of, is it? If you look at where we are normally regarded to be weak, is it not in things like in the quality and reliability, the marketing, those sorts of things? Are not those more the problem of management, particularly middle management, rather than just the so-called scientific education of the workforce?

(Professor Kay) I think some of them are, and we have also talked a bit about business, education and Britain's rather peculiar position in relation to that, so that we have not had much of a trade middle management. Indeed, as a matter of fact, we have not had much of a trade senior management for a long time either. I am not wanting to focus on any particular single solution. I think a number of the industries you mention are industries that have been afflicted by serious and continuing management problems. I think in relation to issues of reliability that is partly a matter of weaknesses in middle management, but I would like to rest the issues there rather deeper in terms of the kind of structures of relationships both within the company and between the company and its suppliers as being what I think is very largely the key to why some other countries have been more successful in these areas, either British or American.

15. But it is not really just a matter of comparing the other countries, is it? If you bring foreign multinationals into this country they have a higher performance level and yet it is the same workforce, same education system, so what accounts for their better performance?

(Professor Kay) Well, they have a higher performance level but one of the things that Japanese or other firms making inward investments in the United Kingdom have done has been to bring to the United Kingdom some of these relationship styles in substitution for the rather different traditional styles of British management. The car industry is by far the most striking example of that.

Chairman

16. A little earlier, when I asked you a question about inward investment as far as Japan was concerned, you said you did not think it actually altered the scenario I painted?

(Professor Kay) I am not sure I got to the end of answering that question! I think the answer is it does to a degree, but not fundamentally, and what we are to a degree doing there is importing and indeed paying for Japanese competitive strength. If we can replicate them here that is where we will actually derive national competitiveness.

Chairman: That is the point Dr Hampson is making, is it not? Mr Porter?

Mr Porter: Is it not a fact, because I agree with your argument generally speaking, that post 1870 in Germany there was a specific government policy to increase the quality of scientific and engineering education and that was pursued post-Bismark and has been pursued by every government since, is that right?

Sir Anthony Grant

17. And in Japan too.

(Professor Kay) I think that is absolutely true, yes.

Dr Hampson

18. That does not necessarily seem to me to be the root of differences today. That technical background is certainly a different one in Germany, to a large extent, after the Napoleonic reforms in France as well; it is a different continental education division. On the other hand, it was not the case in the United States, the United States far outstripped them in the period we are talking about from the late Nineteenth Century to the middle of this century. I do not think there is this direct correlation that people so easily want to see. What about international companies, our own international companies. How do they compare in terms of their ability to be a success?

(Professor Kay) The structure of competitive advantages as between Britain and the United States and as between Germany and Japan have some significant differences. In terms of my identification of underlying sources of competitive advantage I have talked about four primary ways in which I believe successful companies have established competitive advantages, which are reputation and innovation, strategic assets,, which are really monopolies, licences and the like, and what I have called architecture, which are structures of relationships. I think if you look at companies in Britain and the United States we see a higher proportion of competitive strength based on reputation and innovation and a lower proportion based on architecture. I think if we go to Germany and Japan, we actually see that as being the other way round. So that the United States has by far the largest concentration of innovative activity there has ever been anywhere. I talked about elite science in Britain being good, but by any standards elite science in the United States is the best in the world, and that is in turn reflected in the competitive advantages and competitive structures in United States' firms. In terms of reputation, if you go down what are the world's strongest brands, two-thirds of that list will

[**Dr Hampson** *Cont*]
turn out to be American companies, and a high proportion of the remainder will turn out to be British ones. If you look at my architecture-based advantages, I think you much more often find these sources of competitive advantage in Germany and Japan. That also translates into the way that the competitive strengths some identify in Germany and Japan are things one can think of as national competitive advantages, the things that are in the workforce, are in the structure of the commercial environment and which lots of individual firms can access, whereas the competitive strengths I am talking about for Britain and the United States are much more likely to be fairly specific. That is reflected, I think, in the higher degree of multinational operation by British and American firms, relative to some of these firms in other countries.

Mr Ingram

19. In one of your earlier comments you mentioned the pharmaceutical industry and you said that Britain and Germany are leaders in that particular field and the Italians and French are free-riding on the back of that excellence. What do you mean by that?

(Professor Kay) That they are not paying as we are, as British and German consumers are, for the research base that the world pharmaceutical industry has generated.

20. Is that not mirrored through a whole lot of different industries, where particular companies within countries develop a particular excellence and others can get derivative benefits from it?

(Professor Kay) But in others they mostly have to pay for it. You do not find it in other industries as you do in this one. The pharmaceutical prices in Italy are half what they are in Germany, whereas Germany is a strong industry in that particular market and Italy is a weak one.

21. What do you think can be done to stop that?

(Professor Kay) I think in that area we should be trying to move towards a harmonised European system of price regulation, which would have the effect that in the end we would pay less and these other Southern European countries would pay more.

22. A controlled market rather than a free market?

(Professor Kay) I think pharmaceuticals has to be a controlled market.

Sir Cranley Onslow

23. Professor Kay, how important is money in this?

(Professor Kay) It is all abut money, in one sense or another, or it is all about either creating wealth for individual firms and nations. I think the underlying financial systems and structures have a substantial impact on what we say. One of the things I have been doing and a lot of what I have said has been to identify Germany and Japan as one group and Britain and the United States as another. That is slightly superficial in the sense that there are lots of differences between countries within these groups as well as similarities. There are quite important similarities between groups and one of these areas in which I think that is important is in relation to financial structures. Two aspects of that I would emphasise: one is views of the corporation, and this comes back to my emphasis on relationships. In Britain and the United States in the 1980s it seems to me a lot of corporate chief executives thought of themselves almost as super fund managers; they were buying or selling portfolios of businesses, and you can point to a variety of companies that ended the 1980s with a completely different collection of activities to the ones with which they began it. People in Germany and Japan find it very odd to think of companies in these ways. They think of the company as a much more organic and enduring entity, and the way in which you grow and develop a company is by succeeding in competitive product markets rather than, as British and American managers have been inclined to do, looking for the next deal. I think that difference in orientation is very important.

24. Do you think that might be influenced in any shape by the fiscal environment in which they operate?

(Professor Kay) I do not think the fiscal environment is a very important part of it.

25. You do not think taxation has any effect on corporate policy?

(Professor Kay) I do not think it has a primary influence relative to the phenomenon I am describing. I think it is the rather different role of equity markets in these groups of countries.

26. Suppose Government shaped fiscal policy in order to encourage this policy. Would that help?

(Professor Kay) No, it is almost the other way round, that Britain and the United States differ in having more developed equity markets than Germany and, in a sense, Japan; that you have higher gearing ratios in both Germany and Japan than you do here, and you also have more active equity markets, and you have the kind of hostile and friendly takeover activity on a large scale in Britain and the United States.

27. You regard the stock market as the enemy of competitiveness?

(Professor Kay) That would be slightly to over-dramatise it, but there is an element of that.

28. Put it in your terms.

(Professor Kay) I think the active equity market that we have here has actually worked to our disadvantage in two ways. Primarily, by reducing the quality of interactions between the people who put up money for companies and the people who manage them. In Germany and Japan you have deeper more continuing involvements. Secondly, by creating what I think of as a sort of deal-driven culture in top management, in which the way in which you are perceived as being a successful senior manager is by the company having a set of good transactions while you are running it rather than by the way it succeeds in its product markets.

Sir Anthony Grant

29. Pursuing that point to some extent, it is sometimes said, Professor, that the answer to short-termism (which is the great criticism of British

[**Sir Anthony Grant** *Cont*]
industry) is to have the continental system of law which makes it much more difficult to have takeovers and mergers. This provides long-term stability for management and for the people employed and engaged in that industry. On the other hand, we have been told that this tends to lead to complacent management when they cannot be removed, and that the Anglo-Saxon British or American system enables you to concentrate on equities, if you like, on the stock market, and whilst it does mean that short term decisions have to be made it does keep management on its toes. To which view do you subscribe?

(Professor Kay) I agree with both these propositions, and therefore my primary criticism is that it is not addressed to hostile takeovers. I think if we were simply to make hostile takeovers a lot more difficult we would make the quality of British management worse rather than better. What we need is a longer term process of trying to wind down this deal-driven culture which is as much driven by friendly takeovers as it is by hostile ones—in fact more driven.

30. In short, we should be moving more towards the European system of law than the American?
(Professor Kay) Yes.

31. Last question, very quickly, I would like to clarify something I read on page 7. When I was studying law a contract was a binding agreement between two parties. Can you tell me what is meant by "a relational contract" and a "classical contract"? I do not understand.

(Professor Kay) The classic example of a relational contract is a marriage contract, actually, where the law will prescribe a route for getting out of it if you want to escape from it, but how you operate it on a day to day basis is something you have to work out for yourself. It is a commercial relationship which is enforced really by the need the two parties have to go on doing business with each other rather than by the contractual status of the relationship. A great deal of business is actually done that way and people rarely bother to look at the formal documentation that surrounds it, but that emphasis on relational contracting as against what I have called classical contracting—the kind of thing you think of as being bound up with red tape—is one of the big differences between structured business in Japan and structured business in the United States, and we are closer in Europe to that United States end of that spectrum.

Dr Hampson

32. It is often argued that short termism is dodging the R&D commitment: longer perspectives occur elsewhere, but is that the case? I thought business R&D investment had gone up quite significantly and that we are one of the major players there. It is more how you transfer the R&D to innovation rather than the resources we are putting into it, is it not?

(Professor Kay) I very much agree with that, and I think the willingness of markets to go on supporting the pharmaceutical industry actually which has a successful track record in long term R&D is a demonstration of that.

33. Finally, how would you explain the way we collapsed so dramatically whether it is in highly skilled areas like motor bike manufacturing or in white goods manufacturing, and you could almost throw in the Italians here, they have got a high good performing economy at the moment but they do not seem to fit particularly into some of the patterns of American or Japanese culture which you have been talking about.

(Professor Kay) Successful parts of Italian industry are in many respects rather closer to these Japanese models and white goods has not actually been a good long term successful industry for Italy. In the last few years competitive strength in that industry has been moving back to Britain and Germany. What the Italians did was to sweep the European market for a period with rather low quality low price goods and as the market has matured they have lost that market position again.

Ann Coffey

34. Can I return to asking you a couple of questions on training, because you mentioned earlier on that you are concerned about the quality of skills amongst the workforce. Do you think there has been a very heavy reliance on the market to supply skills and industry perhaps to do skills training?

(Professor Kay) I think that in a way comes back (and I am trying to bring quite a lot of things back) to this issue of structures of relationships. If you have a much longer term view of the company and of the position of workers within the company then you will naturally do much more training on the job and explicit training than you will in a more market orientated individualistic culture.

35. So what you are saying is because of that structure and culture there has been a tendency for industry to buy skills on the market place as and when needed rather than looking to the long term skills training of their own people?
(Professor Kay) Yes.

36. At the present, most of the budget for training is going into local Training and Enterprise Councils. Have you any views on how effective that is being in actually improving the quality of skills for industry?
(Professor Kay) I do not know enough about the activities of the TECs to give you an informed view on that.

37. I just wondered, because one of the things you were saying where there was an area of government involvement was through an education training policy, so I wondered what views you had on the present Government's training policy?
(Professor Kay) I do believe that but I do not think I can comment properly on the effectiveness of TECs.

38. What would you like the Government to do? What would you like to be done in terms of a policy for education and training that would benefit British industry?

(Professor Kay) One of the things that I hope keeps coming out of what I am saying is the kind of issues I am describing are actually quite deep-rooted in terms of structures of relationships and skill and knowledge bases. That involves saying some quite negative things to you as politicians, because it

[**Ann Coffey** *Cont*]
implies there is not very much that can be done very quickly about many of these things so that I think the main issue actually in relation to the kind of science and technical education I am talking about is not even within the firm—it is actually the level of numerical and scientific competence that people have achieved at the age of fourteen or fifteen where we know Britain comes out really quite badly relative to some of these other countries which we have been talking about. Now, it is a long term process to try and improve that story, because to make it better we have to have more better people who can teach it and that is the point at which we really have to start and it is not a process in which we can expect to see any substantive results for twenty years.

39. Do you think the national curriculum would help?

(Professor Kay) Again, I do not know enough about the detailed content of the national curriculum to be able to comment.

Mr Porter

40. Nor does anybody else!

(Professor Kay) I feel quite sympathetic to that kind of direction of activity. I can see I am going to get in a quagmire here quite quickly!

Ann Coffey

41. You are suggesting very strongly that the problems are very deep-rooted and that they are within our education system. You work within the education system. If those are your views, and you say that changes need to be made because of these deep-rooted problems, what are the changes?

(Professor Kay) I personally think the education I do which is to welcome performance assessment both of myself and my students is something other people ought to do too.

Chairman: Professor Kay, thank you very much.

Memorandum submitted by Professor Colin Mayer (MC 4)

This note summarizes evidence on (i) differences in financing of industry across countries, (ii) the effect of financing on company performance, (iii) how corporate control and acquisitions differ across countries, (iv) sources of savings and routes by which savings finance industry, (v) the role of stock markets and (vi) possible reforms. It is a series of headings that can be developed in the oral evidence, if this is thought appropriate.

1. *Comparisons of financing across countries*

Retentions dominant source of finance in all countries.

Bank finance main external source of finance in all countries.

More bank finance in France and Japan.

More emphasis on bond markets in North America.

Little stock market finance in aggregate in any country.

2. *What effect do these have on company performance?*

More long term bank finance available in Germany but not in Japan.

Some evidence of more emphasis on profits in UK and growth elsewhere (in particular requirement to pay dividends in the UK, see below).

Of more significance is financing for restructuring.

Countercyclical finance more readily available in other countries.

German firms better able to continue to emphasize investment, R&D and training.

Primary significance concerns financing of medium sized firms.

Different life cycle of firms. UK firms sell out either on stock markets or to other companies.

Medium sized German firms are bank financed. Few IPOs.

Bears crucially on structure and ownership pattern of companies.

3. *How do corporate control and acquisitions compare?*

Consequence of disposals of shares is that firms end up being widely owned.

Result of this is that control through auctions for control.

Elsewhere more concentrated ownership. Consequence is tighter control.

Contrast between insider and outsider system of corporate ownership.

Different forms of corporate control. The outsider system is market for corporate control. The insider is by committee.

It is not true that one system is uniformly better than the other.

Outsider system allows for more diverse views of policy. Takeovers associated with differing views of policy not managerial failure.

Takeovers better at correcting industry as against firm failure.

But takeovers bad system of corporate control.

Two-tier board leads to better corporate governance.

4. *What are the sources of savings and routes by which savings finance industry?*

Most important source of finance for all companies (but particularly high technology companies) is retentions.

Dividend pay-out ratios of UK firms are high.

Dividends inflexible in a downwards direction.

Puts financial pressure on firms during periods of financial difficulty.

For small and medium sized companies, bank finance dominant.

Little evidence of difference in bank policy towards small companies.

Difference comes at the level of medium sized firms.

Venture capital finance more readily available in the UK.

Question is whether can fund expansion phase without loss of control.

5. *Role of stock markets*

Difference in size of stock markets.

Difference in number of IPOs across countries.

Importance of stock markets in providing entrepreneurial incentives.

Difference in concentration of ownership.

Importance of corporate law.

Development of stakeholder interests beyond those of original entrepreneurs.

Creation of a firm.

Systemic failure to commit.

Impossible for large number of small investors to commit to a firm.

Free-rider problem in corporate control.

Concentrated ownership allows free-rider problem to be overcome.

But less diversity of views.

Implication is that UK system is well suited to invention but poorly suited to innovation and development. Fails to preserve stakeholder interests.

6. *Possible reforms*

Stock market system places too much emphasis on protection of minorities.

Accumulation of concentrated share stakes should not be discouraged.

Cross-shareholdings should be encouraged.

Competition law discourages creation of corporate groupings.

Takeover code discourages accumulation of share stakes.

Discouragement to issuance of dual class shares.

Discouragement to banks holding corporate equity.

Corporate law.

Board structure

Representation of stakeholders on board.

Compulsory retirement.

Changing requirements as firm expands.

Examination of Witness

PROFESSOR COLIN MAYER, Professor of Economics and Finance, University of Warwick, examined.

Chairman

42. Professor Mayer, thank you very much for coming to our Committee this morning. Can I thank you also for your memorandum that you submitted. Could I start the questioning by asking you about your central point, which is that there is a lack of commitment among United Kingdom shareholders to the firms they own. Would you like to expand on this, and on its consequences probably in the light of what you have heard from our previous witness?

(*Professor Mayer*) Yes. Many of the views that I am expressing are similar to those that you have just heard from John Kay. I see a fundamental problem within the United Kingdom system as arising from the nature of the relation between investors and firms. In the United Kingdom we have a system which emphasises a market driven approach by which I mean that there are a large number of dispersed shareholders whereas other countries emphasise smaller numbers of shareholders with longer term relations with companies. I think that some of the aspects of the performance of the United Kingdom corporate system that we have just heard and we have heard a lot about in the past relate to this structure of ownership, and that some of the issues that are associated with, for example, training and investment come back to questions of ownership and commitment.

43. On that lack of commitment, what effect has it had on the United Kingdom economic performance, do you believe?

(*Professor Mayer*) I see the system that we have as having advantages and drawbacks. A system of having a large number of dispersed shareholders is beneficial for promoting certain types of investments. Basically these high risk speculative investments occur where investors are taking a punt on an outcome. I think the United Kingdom stock market system is quite well developed to that type of activity; under it one might, for example, include pharmaceutical investments, oil exploration, perhaps bio-technology. I think the United Kingdom system is not well suited to activities which require longer term relations, both between investors and firms and between various different types of firms and in particular between suppliers and purchasers. I think that aspect of the United Kingdom system has been detrimental to more basic types of manufacturing industry.

44. Can you just explain briefly which manufacturing sectors, for example, do you say have been affected detrimentally by that? Can you tell us where it would be advantageous?

(*Professor Mayer*) I think an example of where it has been detrimental has been in the electronic industry, where, if one looks around in other countries, relationships between a large number of firms in the electronics industry are very important. I think that in terms of investments in other industries, in particular in innovative industries such as pharmaceuticals and biotechnology, those types of relationships—while quite often important—are less crucial, at least at certain stages of the production of those firms. Those activities have actually benefited from the greater availability of the traditional type of equity capital. The United Kingdom does provide equity capital of a form that the Stock Market is proficient in supplying. What it does not do is to provide the type of long-term financial arrangement that is a feature of the German and Japanese system.

Sir Cranley Onslow

45. I was just going to probe you a bit on this. Have you done an analysis of the top 100 companies which shows, for example, that the share ownership pattern of Glaxo is atypical in some ways?

(*Professor Mayer*) It is not a question, really, of whether the ownership pattern of Glaxo is atypical (in Glaxo's case it is not), it is a question of whether that structure of ownership is well-suited to the activity of the firm. In the case of pharmaceuticals I am arguing that it may well be the case that the dispersed ownership, which is a feature of most of the large quoted companies in the United Kingdom, is suited to that type of activity, but not to the more standard type of manufacturing industry.

46. If you did an analysis of the top 100 you would tend to find the big institutions hold between 5 and 3 per cent up to a total of, say, 40 per cent of the total equity shareholding, would you not?

(*Professor Mayer*) Up to a total of perhaps getting on for 60 per cent.

47. Okay.

(*Professor Mayer*) That is a characteristic of the United Kingdom market.

48. That is not a large number of shareholders, it is a number of large shareholders.

(*Professor Mayer*) It is a number of large shareholders, and it is extremely different from the pattern of ownership that one observes in continental Europe and in Japan, where I am talking about one shareholder owning at least 25 per cent of a company's equity, sometimes the majority.

49. That would tend to be a bank?

(*Professor Mayer*) No.

50. Who would it tend to be?

(*Professor Mayer*) It would tend not to be a bank. It would tend to be another corporate. If one looks at the ownership pattern of the large German companies, for example, you find that in nearly 90 per cent of the largest German quoted companies there is at least one shareholder owning more than 25 per cent of the shares in that firm.

51. That may have something to do with the history of the company, if it is relatively short.

(*Professor Mayer*) No. We are talking about the largest, long-lived companies in Germany. Those ownership patterns are long-lived, very stable. Indeed, that is a very important characteristic.

52. When you say "long-lived", what do you mean? Forty years?

(*Professor Mayer*) Yes.

53. Not pre-war?

[**Sir Cranley Onslow** *Cont*]

(*Professor Mayer*) In some cases we are talking about pre-war, or at least the patterns of ownership were installed pre-war. The same goes for Japan. There is a lot of change around, but the basic structure in many of the ownership patterns dates before the war. If one looks at the average life of a United Kingdom quoted company one is talking about 50 or 60 years. It is not that different.

54. How do you copy the German or Japanese condition in this country, if you think it is much to our advantage to do so?

(*Professor Mayer*) The first point I would make in relation to that is to reiterate the statement that it is beneficial for certain types of activities, not universally. Secondly, if one looks at the way in which German companies develop one can see how this difference has emerged over time. Basically, the typical pattern of life-cycle of the United Kingdom company is if it is successful it will seek a quotation on the United Kingdom Stock Market at a relatively young age. The typical development of a continental European company, or a Japanese firm, is that they will not seek a Stock Market listing at an equivalent age. Instead of seeking finance from the Stock Market they will usually be funded through banks at that medium stage of development. Many companies do come to the Stock Market, though very many fewer than in the United Kingdom. The size of the Stock Market in the United Kingdom is approximately five times that in Germany, in terms of numbers of companies, but those that do come to the Stock Market will be brought to the Market by a bank that has built up a long-term relation with the company and will maintain that long-term relation with that company. It will seek an ownership of that company which it feels is appropriate for the monitoring and management of that company. That will often come from a related company—perhaps a supplier or purchaser. In the case of Germany that is not necessarily the case; quite a lot of the ownership pattern is associated with companies that do not have direct trading relations. In the case of Japan the large owner usually will be a supplier or a purchaser. That is a feature of the Keiretsu.

55. Do you think that state of affairs could be brought about here?

(*Professor Mayer*) I think that there are some aspects of that system which could be encouraged in the United Kingdom.

56. How?

(*Professor Mayer*) Let me put this the other way round. I think there are certain aspects of public policy in the United Kingdom that act to discourage these longer term relations. One of the reasons why historically the United Kingdom has tended to emerge in the direction of having few large stakeholders is that we have placed a great deal of emphasis on "protection of minorities", by which we mean that small shareholders in the United Kingdom are exposed to exploitation by large shareholders and, therefore, have to be protected. Examples of those are discouragement of the use of dual-class shares in the United Kingdom, the takeover code which requires that once a certain percentage of shares have been purchased in the company one has to bid for all the shares, so that all shareholders receive the same price as the large shareholders, and absence of voting right restrictions in the United Kingdom. Those aspects of policy have actually been rather more important in terms of allowing some large stakeholders to exert control over Germany companies.

57. What about the MMC in this country?

(*Professor Mayer*) In what respect?

58. Would you see it as an obstacle to the creation of a German pattern?

(*Professor Mayer*) There is one aspect of that which is quite important, and that is that although these aspects of dual-class shares and voting right restrictions have allowed control to be exerted by large stakeholders, a more important aspect is this concentration of ownership in the German/French/Japanese systems. Since a lot of that ownership, as I have just described it to you, comes from other companies it raises an obvious and immediate concern, and that is some sort of collusive behaviour between firms. I think that in terms of the development of these systems one of the aspects that is very important in identifying whether they work well or badly is whether they have encouraged the development of monopolistic practices or whether these systems have emerged alongside competition. One of the things I have been emphasising in the papers I have been writing is that it is the combination of this "insider system" with competition in markets that has been successful. Where one simply observes insider type control without the effects of competition then one observes all of the failures that one sees in other countries. So it is not just a matter of what is the role of a Monopolies Commission. I think the Monopolies Commission in Germany has been very important in trying to prevent that type of collusive behaviour from a merchant but it is also in part an industrial structure issue. If you go back and think about the development of Japan, for example, which did not have the system that we observe now so clearly in place before the Second World War, it was quite clearly the case that as part of the development of these cross-shareholding relations between firms, MITI promoted the development of competing groups of firms and the internal competition between those groups as we now realise has been intense and has been a crucial aspect of the success of those relations.

Sir Anthony Grant

59. Are you in fact saying, Professor, in essence that what we should do in this country and the United Kingdom is to have less people owning more shares—more of British industry? That is in essence what you are saying, is it not?

(*Professor Mayer*) Yes—

60. In other words, if I could just continue, are you saying therefore that we should discourage wider share ownership?

(*Professor Mayer*) Well, can I first of all say that I think the issue of whether a large number of shares are held by a large number of institutions, pension funds, fund managers or a large number of individuals is largely irrelevant. I do not see wide share ownership as giving rise to particular

[**Sir Anthony Grant** *Cont*]
improvements or deterioration of performance and I think that a comparison of the United Kingdom and the United States is quite telling on this point. The United States has a system (well, traditionally anyway) where there has been wide share ownership, a large number of individual shareholders, whereas in the United Kingdom the dispersion has been between institutions. The same concerns arise in the United States as arise in the United Kingdom, the same problems apparently about short term attitude. The real issue is whether one is encouraging a significant stakeholder to take a serious participation in a firm in which that stakeholder will have a strong incentive to monitor and manage their investment. I believe that until one sees some of those aspects of continental Japanese systems emerging, one can exhort institutions to play a more active role until the cows come home but basically it is not going to make much of a difference. We have heard numerous committees and reports over the last decade and longer saying it is a problem of communication and communications have to be improved but nothing seems to change. Of course nothing changes because it is not in the interests of any one investor to devote a great deal of time and effort to monitoring a firm if they have only got a minute shareholding in that firm; exactly the same debate is going on in the United States at the moment, as you are aware. There they are saying "We have got to get up to three per cent." They look to the United Kingdom and they say "Oh, well, perhaps the three per cent. or the five per cent. in the United Kingdom is better". But that really rather misses the point.

61. Do you see really no merit whatever either philosophically or morally or socially in an increasing number of people actually taking an interest in British industry by holding a stake, no matter how small and do you say rather on the contrary that their interest should solely be as wage or salary slaves?

(*Professor Mayer*) No, that is not the essence of either what I am saying or of the German or Japanese systems. As I have noted, there are quite a large number of quoted companies, very large quoted companies in all of these countries and if you look at the German statistics on trading in shares you see much higher turnover of shares in Germany than in the United Kingdom. So short termism has got nothing to do with either the existence of shareholders or the fact they are turning over their shares. What is clear in those systems is that the behaviour of those investors does not affect the control of those companies because the people who are in control are large dominant shareholders and what they have been able to create is both the best of what you are talking about—of participation of individuals who can buy and trade shares—at the same time as ensuring that there is effective control of corporations.

Chairman

62. On that one point, what sort of relationship do you believe should there be between those who have been invested in and the investor? You talk about communications. Is there a change in that pattern or do those major companies actually make their position known to people making their investment in them?

(*Professor Mayer*) In this country?

63. Yes.

(*Professor Mayer*) Unquestionably there has been a huge investment in investor relations in Britain—there is much more communication. But do I think the problem has gone away in the United Kingdom? No.

Dr Hampson

64. Surely the argument has been that you have some very powerful fund managers of a relatively limited number of people, few institutions, who are actually determining the course of British industry investment and that they, with their quarterly performance reviews, do not by the nature and structure of their operations and their delivery requirements have any long term interests in the company? It is not just the number of shares then. It is the quarterly performance and review and the bottom line profit they have to make, is that right?

(*Professor Mayer*) Well, that raises an interesting question of supposing one thought about not moving along German or a Japanese line of inter-corporate shareholdings but of encouraging the Pru or M&G to have a large shareholding, instead of holding a large number of shares in particular companies so they would have much more incentive then to monitor and manage. Could we overcome this problem that you have just described that they are subject to quarterly reviews? The answer is it is not entirely clear that one could overcome the problem, because I think of these pressures of comparison of performance across fund managers. It is the nature of the equity relation between the large number of investors and fund managers that make it very difficult for those fund managers to take long term views. It is a rather striking feature of other countries that if you look at the large ownership patterns, I have said that most of them are inter-corporate rather than banks, but in both Germany and Japan to the extent that there are institutional investments they tend to be by banks and if one posed the question "What is the difference between a bank and a fund manager?" the answer is that they are under different types of incentive arrangements. All that a bank has to deliver is a debt contract—a promise to repay a fixed interest. It is not a same type of measurement against the mean, against the average, and I think it is difficult to imagine that one will be able to create those long term relations even if one shifted the ownership patterns of M&G and the Pru.

65. May I focus, Chairman, specifically on the consequences of short-termism on research and development? We had one City adviser tell us that the United Kingdom needs a crash programme to increase civil R&D expenditure. On the other hand, you have heard the exchange I had with Professor Kay. Is it that we are not spending enough and when there is a recession it is one of the first things that the short-termist view wants to have cut, or is it more that, in fact, there is plenty of money there, (and we are spending the fourth largest amount of the industrial nations), but it is how we deliver the R&D

[**Dr Hampson** *Cont*]
into innovation and products that is the real problem?

(*Professor Mayer*) Yes, I think that is correct. The picture I described at the beginning is one in which the United Kingdom is not disadvantaged by its system in terms of a large number of R&D activities. Indeed, some of the activities that I pointed to—for example, pharmaceuticals—are high R&D industries. If you look at patterns of R&D expenditure by the large companies in the United Kingdom, there is a very striking feature that emerges. If you match the large, private, unquoted companies in the United Kingdom and equivalent large, quoted companies, you find that most R&D in the United Kingdom is undertaken by the quoted companies. It is actually very difficult to square that observation with the notion that somehow or other the United Kingdom system is disadvantaging pure R&D expenditure. What I think is the problem—and this is exactly consistent with what John Kay was just saying—is what happens thereafter. It is the process of going from invention to implementation that the United Kingdom is very poor at. I think that relations between companies and between investors of companies are crucial in our failure in that regard.

Mr Clapham

66. Professor, do you consider we could move towards a changed culture from the previous culture you were describing in terms of architecture? Do you think that that could be achieved by giving much more share ownership to employees who, after all, have invested their lives in the company? Would that, at the same time, create the kind of stability that we require to restore British manufacturing?

(*Professor Mayer*) First of all, could I just make one general point in this area? I think there is a terminology which is used here which is quite unhelpful. People talk about differences between countries as arising from their culture. I think to use that phrase is a bit of a cop-out; that it is basically saying "We cannot explain those differences, therefore there is nothing further that can be said about them". I think a lot of the differences that exist between countries—those apparent cultural differences—come back to fundamental structural differences between countries. I refer to Japan again as an example of where this long-termism is not a deep, inherent feature of the Japanese people. Coming on to the question of employee ownership, I certainly see some merits in terms of ensuring that people are rewarded in relation to their corporate performance. In that respect I think that employees' share ownership is a good thing. But I do not, for one moment, believe that it is the fundamental issue here; the fundamental issue that I am talking about is a question of corporate control: who ultimately can decide on the policy of firms and whether or not they switch markets, whether they decide to make new investment that will increase employment, or to move to dispose of assets which will give rise to redundancy? I think that the problem in terms of involvement of employees in Britain has not been one of an absence of share ownership on the part of employees, it has been a problem about a lack of faith in the activities of firms. A Japanese or German employee will typically view their company as being a permanent feature; that the ownership and control of that company will basically remain unchanged. The degree of commitment of employees to firms outside of the United Kingdom stems in large part from that perception that it is worthwhile putting in the effort: if I decide to go on a training course that my current line manager tells me is good for me I will think it worthwhile. Why do I think it worthwhile? Because if I do more then I will be rewarded and I will move up the hierarchy. In Britain, if I do well and I put in all of that investment, five years down the road I might find that, lo and behold, there is a hostile takeover, the management has changed, the whole philosophy of the company has changed, my investment that I have sunk down the road is of no value whatsoever. Therefore, these issues about investment by employees, by suppliers, are all very closely interconnected and they come back to this question about whether or not one can encourage participants to invest and make the equivalent commitment.

Ann Coffey

67. I was just going to say that the culture you describe, although you do not like the word "culture", and long-term commitment to survival, is a feature of public services.

(*Professor Mayer*) First of all, to some extent, it is questionable whether it is a feature of public services because, again, one has to come back to the question as to who is ultimately in control? In principle, an elected body is ultimately in control, and the nature of that elected body can change. Whether or not it is a feature of public services that they have long-term control patterns or short-term ones is far from clear. Secondly, it is not, I would suggest, a primary distinction between countries that in some places government public service is of crucial importance and in other countries it is not. The differences that I have been talking about have been private sectors; all of these countries are capitalist countries in which there is equity ownership. The role of the State certainly differs between countries, and there is a very interesting question about whether or not the French greater emphasis on the State as against Germany has been beneficial or detrimental. That, I would suggest, is really not the fundamental issue; the fundamental issue is whether or not the private sector itself has been performing properly.

Mr Porter

68. I want to challenge one thing, if I may. That example you gave of the man who goes on a training course at the behest of his line manager, then five years later the ownership of the company changes. You have said quite blithely that the skills acquired on that training course are of no use again—finished. Why on earth does that follow? I am assuming you learned economics at some university and you sold the skills you acquired to another university.

(*Professor Mayer*) That is exactly what happens in the United Kingdom. Basically, what one encourages people to do is to invest in general skills—in skills that are of value irrespective of the company for which they are working. That is precisely what, starting off as an economist, I was encouraged to do.

[**Mr Porter** *Cont*]
What one is encouraged to do in other systems is to make more of a commitment in terms of firm, specific investments. Those firm, specific investments may, in many cases, be quite crucial to the success of those businesses.

69. Why should an individual be locked into one firm or one sector for all his working life?

(*Professor Mayer*) Because some of the investments that are required in terms of training are bound to be related to the company for which one is working. Unless one is able to build up those relations between firms and the employee then one is going to lose some of the productive benefits that other countries have.

70. As somebody once said, might that not be a price worth paying?

(*Professor Mayer*) I think that is an important issue. One is coming on to quite serious political questions about whether one would want to have these aspects of a German or Japanese system. For my part I do not actually think that the commitment of a German or Japanese employee to his firm has acted to the disadvantage of those employees. I think, on the contrary, the so-called freedom of choice that a British employee has had has been, in some respects, detrimental, because it is a two-sided freedom: a freedom to fire as well as a freedom to shift between jobs. That certainly is a very relevant question.

Mr Ingram

71. Following on from that example you gave of the company philosophy, Professor Mayer, the company orientation of employees, you said that you can measure success in those companies because of that. What about the IBM experience—the company recording the biggest loss in financial history because of that very philosophy?

(*Professor Mayer*) I think IBM is a rather good case actually because IBM in some respects has displayed many of the characteristics of the long term commitment which one does observe in some companies in the United Kingdom as well: they were willing to make long term commitments because they saw IBM as being a long term investment. Now, what then happens is that there comes an industry shock which means that the large scale IBM production is no longer appropriate. What happens? Well, one possibility is (and what we have observed in the United Kingdom) that one has a hostile bid, the company gets broken up, people get thrown out of work. If that happens, I am suggesting there is a serious cost—a cost that it is extremely difficult to measure. It is not just the cost of people being thrown out of work—it is a cost in terms of the attitude of people that then see the investment they have made in IBM as not worth their while—it is not worth their while making it in their own firm. If, on the other hand, IBM splits itself up, sells off some of its subsidiaries, maintains its apparent lifetime employment commitment, then I do not think that aspect will be lost. I would suggest that other countries are able to restructure their industries in that latter way—that is to say, it is not done through a hostile bidder coming along, making people redundant, but it is done in terms of sales of parts of companies where the longer term commitment is still maintained.

72. IBM are making people redundant. The consequence of that last wrong decision-making resulted in tens of thousands of people being made redundant.

(*Professor Mayer*) Absolutely. VW will be making people redundant. It is not a feature of a German or a Japanese firm that they cannot make people redundant. The question is whether, when those decisions are made, interests of employees feature prominently in the decision-taking process, and it is, I would suggest, a feature of most systems outside of the United Kingdom and the United States that it is not simply a shareholder decision.

Ann Coffey

73. Very briefly, and it follows on from there, there is a culture of creating a flexible work force in this country which is people having short term contracts, working for a firm, moving in and out.

(*Professor Mayer*) Absolutely.

74. And it is an increasing phenomenon. Do you think that notion of a flexible workforce is a very efficient way of organising industry?

(*Professor Mayer*) For some things, yes. For example, one other industry where there has clearly been a discrete change is publishing, which again used to be a big firm exercise. Again, one observes quite a lot of long term relations. For technological reasons it has now become much more of a small activity where quite reasonably people can move easily between firms where there is not a requirement for a long term investment on the part of employees, and where short term contracting is basically quite beneficial for everyone concerned. So in that industry it seems to me to be entirely appropriate but I think there still remains a very substantial basic manufacturing industry which is benefiting and will for the foreseeable future benefit from much longer term relations.

Sir Anthony Grant

75. Very quickly, Professor, do you think the translation of as I understand it the European two-tier board system to presumably United Kingdom law would improve the performance of the British manufacturing industry?

(*Professor Mayer*) Well, let me first of all say that I do not think the distinction between a two and one tier board is the crucial issue. I think these questions about ownership patterns and commitment are much more relevant. I say in the note that there are advantages associated with the two tier board and basically the advantages that I do see associated with it are that it gives rise to a better form of corporate governance. The reason why I think it gives rise to that is that it introduces a degree of independence between the monitor and the monitored. It therefore allows for a much more independent evaluation of performance to be taken. I do not want to go into great depth as to how a two tier board typically operates in Germany, but essentially its function is one of screening the investments that companies make, coming to a decision as to whether or not it feels that large scale investments are appropriate, and

[**Sir Anthony Grant** *Cont*]
then monitoring their performance. Provided the management is perceived to perform well in relation to targets, then the management will remain in control. What I think is a problem with the single board is that it either gives rise to what is most commonly perceived in the United Kingdom as a problem, namely ineffective non-executive control, by which the chief executive just basically runs the firm, or alternatively (and I think this is potentially as serious a risk) it gives rise to too much intervention. If one has a powerful set of investors represented on the board, directly and involved in almost day to day decision taking, then it will give rise to too much intervention in the running of the company. What I perceive as being really quite an important merit of the two tier system as it is practised in Germany is not only its corporate governance and monitoring of companies but also the independence that it confers on managers. A good analogy here which will strike a chord is academic tenure which in the United States is typically worked on a five year period. That is basically how a German board system operates - you are in place for a five year period unless something really very bad happens. You would expect to remain in place and you are just monitored by the supervisory board over that period and I think that that is a good form of corporate governance.

76. Would you just translate by law into British company law exactly the German system?

(*Professor Mayer*) No.

77. Why not?

(*Professor Mayer*) I do not believe that it is necessarily appropriate to move directly over to the implementation of a two tier board in part, because the representation on a supervisory board in Germany comes, as I said earlier on, from interested investors from these large stake holders. They therefore have an incentive to do their job properly on a supervisory board, but I do think (and this is a point that I have emphasised) that there are some aspects of continental law which would be very beneficial—for example, the nature of the company changes as it grows in size. The required representation on the board changes as a company grows in size, and I see a lot of advantages in that system. So I would suggest that it is certainly advantageous to look at other countries' systems and their forms of corporate law and potentially to draw from those but the wholesale introduction of a continental system I do not think would be appropriate.

Chairman: May I thank you very much. I thought when you were talking about the five year tenure you were referring to Members of Parliament!

Memorandum submitted by Mrs Margaret Sharp (MC 1)

INTRODUCTION—A FAILURE TO INNOVATE

1. My thesis is that British (ie British-owned) manufacturing capabilities are weak and have got weaker over the course of the 1980s, exemplified above all by the substantial deficit in manufacturing trade even in the depth of the recession. This weakness is linked to a failure to innovate in its broadest sense—to invest in new equipment and designs, new techniques and new skills, or new ideas which might lead to such improvements. Thus Britain finds itself bottom of the league tables not only for investment in plant and machinery, but also for technician training, industrially financed research and development (an indication of how far industry itself is prepared to put its own money into developing new ideas) and patenting (measuring in a rough and ready way how far industry is translating R&D into new products and processes). (See Tables attached for details.)

2. This failure to innovate is common to all UK-owned industry with the honourable exception of the chemical and pharmaceutical industries. Extract their contribution from the whole and the performance is without exception poor. It is not a question therefore of just one or two high tech sectors—such as computers—but a more pervasive failure across many sectors, high tech, middle tech and low tech. Far too many sectors in Britain are producing yesterday's products with the day before yesterday's machinery, equipment and designs. As a consequence, British industy finds itself squeezed between the low wage cost countries of the newly industrialising world and the modern advanced economies of countries such as Japan and Germany. Unable to compete, its firms have closed down, leaving the field open to imports and foreign transplants. Devaluation only helps temporarily—it buys time. The key is to improve competitiveness via innovation.

SYSTEM FAILURE—A COMPLEX OF CAUSES

3. Why does Britain suffer from this failure to innovate? I do not believe that there is one simple answer to this question, but rather that it is a complex 'system' failure in which one failing feeds upon another to compound the problem. Amongst the factors contributing to this system failure are:

(a) *The low skill base*—Britain has notoriously neglected education and training, particularly at craftsman and technician level (see Table 5). As Professor Prais has found, even when matched plants in Britain and Germany used the same type and vintage of equipment, productivity in Britain was 60 per cent lower than in Germany. The main problem was the higher rate (and length) of

breakdown in the British plant compared to its German counterpart, the key factor being that the British operatives were not capable of maintaining the equipment in prime working order or using it to its full potential. *The knock-on effects of this mean lower productivity and lower rates of return on investments.*

(b) *High investment levels*—Table 1 indicates that the UK shares with the US the distinction of having the lowest investment and savings ratios of the developed world, the obverse of which is high levels of consumers' spending. In theory there should be little relationship between rates of saving and rates of investment so long as low saving countries like Britain are free to borrow internationally (*vide* the high rate of inward investment). *In practice high saving countries have also tended to invest more and to grow faster.* And, of course, high levels of invesment also means a more up-to-date capital stock.

(c) *Short termism*—the separation of responsibilites amongst specialist intermediaries has led to undue fragmentation of the money markets which in turn has led to short termism. Each intermediary is, to the best of its abilities, making money for the trust funds they work for, arbitraging between investments to secure maximum gain. This may be to the disadvantage of savers in Japan or Germany where the financial intermediaries lock their clients' resources into long-term commitments to industry and are not able to switch from one fund to another according to who is offering the highest rate of return. *The downside of this flexibility of the British (and American) capital markets, however, is that share prices are highly sensitive to any news which suggests rates of return may be lower over the short period.* This leads company managers to be very concerned to maintain share prices and to avoid actions (such as diverting funds from distribution to shareholders into investment of R&D) which might lead to a fall in the share price. *In consequence risk aversion is endemic in the system.*

(d) *The dominance of financial management*—the importance attached to the financial performance of the firm in turn gives greater power and prestige to the financial administrators (as compared to their production/technological counterparts who dominate in Japanese and German firms). This encourages the use of systems of management based on decentralised profit centres which (again) *encourage emphasis on short-term performance and inhibit the exploitation of changing technological opportunities across divisional boundaries.*

(e) This factor further leads to *the exclusion of many of those with scientific and engineering backgrounds from mainstream managerial positions* (except via a 'conversion course' in accountancy and graduation into the financial management stream) and creates the vicious circle of low status/low pay/non-crucial jobs for those in production engineering and R&D. This in turn helps to explain what I call the 'cult of the boffin' in British industry. Those with backgrounds in science and engineering are not encouraged to move into mainstream managerial positions but rather to continue in their own field which, for its part, is often imperfectly understood by a management cadre with little or no understanding of science and technology

WHAT CAN BE DONE TO REVERSE THIS SITUATION?

4. *Attacking cause not symptom*

One of the problems that Britain has faced over the years has been the failure to recognise the systemic nature of its problems and to concentrate attention instead on the symptoms not the causes of failure. This is particularly true of macro-economic policy where the long-run failure of the productive system has exacerbated problems of inflation, unemployment and the balance of payments—indicators which all in themselves reflect the underlying imbalance of the economic system. Too often we hear the phrase "we cannot afford to invest more in education and training (or science and technology) until we have got the economy on the right track", ignoring the fact that the economy will never perform well until attention is given to improving these "fundamentals".

5. *Recognising the long-term nature of the problem*

It is also important to recognise that there is no quick fix to many of these problems because they lie deep down in attitudes and behaviour which cannot be changed overnight. But the very fact that what is required amounts to something of a "cultural revolution" should not in itself deter us from trying (on the grounds that it is hopeless to try to change the culture). "If you don't try, you don't get." A start has to be made somewhere.

6. *A multifaceted supply side programme*

On this basis the sort of programme I would advocate would consist of a range of mutually reinforcing measures aimed at attacking some of these supply-side failures and simultaneously trying to build up institutions for the longer term which help to cement a change in attitudes. It is impossible to detail all policies here, but broadly speaking they might embrace:

(i) Renewed *emphasis on education,* particularly on maths and science, with the aim of raising competence and capabilities all round. This would involve, amongst other reforms, the abolition of A-levels and their replacement by a broader-based 18-year-old school-leaving examination on the lines of the International Baccalaureate.

(ii) The introduction of *well-founded training and retraining systems* based perhaps on the TECs but with the resources necessary to cope with the training and retraining needs of all, not just the young unemployed.

(iii) Over the longer term, *more emphasis on investment and saving* and less on consumption and spending. Government might need, at least in the short run, to increase taxation in order to raise savings levels. But government may also need to increase its capital expenditure. The long-needed separation of current from capital expenditures in the public accounts will help to justify such measures.

(iv) Proper attention to the provision of *a good industrial infrastructure*—not just science, technology and telecommunications, but also roads, railways and public services such as pollution control.

(v) *An attack on short termism*—the Government (Treasury) should lead the way in its conduct of the public finances, but we need to look hard at the institutional relationships between banks and companies and what might be done to develop longer-run supportive frameworks.

(vi) Recognition of *the interdependence of micro- and macro-economic policies*—investment and long-term thinking require confidence in the future and an end to stop-go policies. The two sets of policies need to be meshed together towards the same end. In this respect the Japanese long-term forward looks—the MITI "visions"—have virtue in identifying long-term targets on which both public and private sectors are agreed.

19 May 1993

Table 1: Investment and Savings as percentage GDP—1986–90 Average

	Gross Investment	*Net Investment*	*Savings Ratio*
UK	18.5	7.2	4.5
West Germany	20.4	8.9	15.0
France	21.3	8.2	8.2
Italy	20.9	9.0	8.4
US	15.1	4.5	2.5
Japan	30.1	16.0	19.0

Source: OECD

Table 2: Industry Financed R&D as percentage GDP

	1967	*1975*	*1985*	*1988*
UK	1.00	0.80	0.96	1.06
West Germany	0.94	1.12	1.58	1.78
France	0.61	0.69	0.94	0.96
Italy	0.35	0.47	0.58	0.54
US	1.01	1.01	1.35	1.35
Japan	0.83	1.12	1.84	1.95

Source: OECD (quoted in Patel and Pavitt, 1991)

Table 3: Shares of Western European Patenting in the US

	1963–68	*1969–73*	*1974–78*	*1979–83*	*1984–88*
UK	24.8	21.6	18.2	15.9	14.7
West Germany	33.7	35.6	37.2	40.1	40.1
France	13.4	14.0	14.5	14.3	14.6
Italy	4.3	4.8	4.7	5.4	5.8
Netherlands	4.7	4.4	4.3	4.5	4.6
Sweden	5.2	5.1	5.7	5.1	4.9

Source: Patel and Pavitt (1991)

Table 4: Sectoral Breakdown of R&D Spending 1985–88

Business Enterprise R&D	*1985*	*1988*	*per cent Annual Increase*
Chemicals	942	1362	13.1
Mechanical engineering	263	261	−0.3
Electronics	1759	1787	0.5
Other electrical engineering	126	127	0.3
Motor vehicles	372	405	2.9
Aerospace	818	705	−4.8
Other manufactured products	395	427	2.6
All manufacturing	4673	5084	2.8
All manufacturing without chemicals	3731	3722	−0.1

Source: Innovation Advisory Board (DTI): City Attitudes and Practices, June 1990

Table 5: Numbers Qualifying in Engineering and Technology—1985

	(000s)				
	Doctorates	*Masters*	*Bach.*	*Tech.*	*Craftsmen*
UK	0.7	2	14	29.00	35
West Germany	1.0	4+	21	44.00	120
France	0.3	6+	15	35.00	92
US	0.5	4	19	17.00	na
Japan	0.3	5	30	18.27	44

Source: Prais (1988)

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Examination of Witness

MRS MARGARET SHARP, Science Policy Research Unit, University of Sussex, examined.

Chairman

78. Can I thank you, Mrs Sharp, for coming to our Committee this morning and also thank you for your submission as well. Could I start the questioning by saying that in your document you say that British-owned manufacturing has become weaker during the 1980s. What credence do you put to the argument that it has become leaner and meaner and, therefore, more competitive?

(*Mrs Sharp*) Why I think its activities have weakened during the 1980s is because, if we look at the record of investment, this has been extremely poor, as a whole, for British manufacturing industry. Outside the pharmaceutical and chemical areas, the record on research and development and the record in patenting has decreased. It has become worse during the 1980s rather than better. I think there are elements of it being leaner and fitter. There is no doubt that part of the increase in productivity that we saw has been achieved by lopping off a very inefficient tail that undoubtedly existed back in the mid-1970s; partly, also, as a result of the improved employment practices coming, I think, as a result of changes in trade union law. I think there is no doubt that the inefficiencies in the trade union organisation in Britain had some effect and that those changes have had a good effect on productivity. When one looks at the fundamental competitiveness of British manufacturing industry I do not really think this has improved.

79. Let us look at the structure of that. Do you subscribe to the argument that the large British companies are productive and, indeed, a match for the rest of the world, but the problem really lies with the lack of medium and small sized companies that are efficient and effective?

(*Mrs Sharp*) No, I do not subscribe to that view.

80. Why not?

(*Mrs Sharp*) I think you need to look at a company like GEC, which is one of our finest in the electronics field. During the 1980s which was a period of incredible opportunity for many electronic companies, we have seen GEC withdraw almost entirely from the civil electronics field and concentrate increasingly on its defence electronics. Its response to the ALVEY initiative was a very sad response. Here we saw a very real increase in academic industry relationships and an interchange of knowledge, but industry failed to use it. GEC is an example of such failure—to put R&D money behind such initiatives. Therefore, the whole outcome was, really, very disappointing.

Sir Cranley Onslow

81. Do you regard Racal as an example of failure?
(*Mrs Sharp*) No, not Racal. Racal has moved very much into the area of mobile telecommunications and, in fact, if you look at its technology, it comes as much from Japan as anywhere else.

82. It has been a successful company filling a gap.
(*Mrs Sharp*) I think it is a successful trading company.

83. Does the attitude of management have a lot to do with that? Lord Weinstock's attitude is not the same as Sir Ernest Harrison's.
(*Mrs Sharp*) Management is a very important factor.

Mr Ingram

84. Just on the R&D side of things, the Science and Technology White Paper is to be published later today. It has been heavily trailed, so I think we know roughly what it is likely to say. Do you anticipate there is going to be much benefit from that White Paper?
(*Mrs Sharp*) No I do not, because it is largely going to be about changing institutions. The issue I am concerned with is one that comes within the remit of innovation and I believe that Mr Waldegrave is saying very little about this. He may say something about science education. I hope he does.

Chairman

85. What are the strengths of British manufacturing, or what we should be building up to?
(*Mrs Sharp*) We need to look at pharmaceuticals and chemicals, where I do think we have a very good record. We have a record of long-term investment in research and development and in science and science education. If you look at the people running these companies they are very often coming from the science side. Sir Richard Sykes, who is head of Glaxo, was a Research Director and, earlier, was a researcher within the organisation. If we look at German companies, in fact the road to management is often from R&D. Young researchers are screened coming in with their new ideas and if they are seen as having management potential they are taken from R&D, put into management and trained in management techniques. This is a very different system from the one we have in most companies in Britain. I believe that our failure is one that goes across the board here. Therefore, there is an enormous amount of potential in many industries for Britain. One of the incredible things about, say, textiles, is that currently two countries who are extremely high cost—Germany and Sweden—are also successful exporters of textiles and clothing. One would not expect this, but it is partly because they have adopted new techniques of manufacturing and they have been very successful. I believe the potential for many industries in Britain is very considerable. We have the great advantage of having low-cost labour compared to most of our neighbours. The problem is that low-cost labour is very often very badly trained labour, and that we are not using the tools and the equipment that we need to use to produce a high quality product, and even when we have got that equipment we then use that equipment badly. So the potential is there across many industries to make a success. I think it is very sad to see industries like the motor car industry, the electronics industry—many industries in which we have had a technological lead—not fulfilling their potential in the world markets.

Sir Cranley Onslow

86. I have read your paper and I have read the other papers we have been given this morning. There is one word that never seems to crop up, and that is profit. Do you think profitability has anything to do with ability to innovate?
(*Mrs Sharp*) Profits are important, but you need to put profits into perspective. If we look at the record of British industry over the 1980s we see that we have increased profits considerably. The hope of the Thatcher revolution was that those profits would actually go into R&D and investment in manufacturing. During the 1980s the proportion of profits that has been distributed as dividends has risen from 40 per cent to 70 per cent.

87. So you are against the distribution of profit?
(*Mrs Sharp*) I believe it is very important that British industry—and I reiterate this again—puts a greater proportion of its earnings into long-term investment.

88. Do you think that is a free decision, or one which government can influence?
(*Mrs Sharp*) I think government can influence it.

89. How?
(*Mrs Sharp*) I think partly by setting a good example itself. I believe, at the moment, the way in which we run government is one that exhibits short-termism. If you take the local authorities, most local authorities do not know until just before they set their budgets, in February, precisely what they are going to be receiving from the Department of the Environment. They can make no long-term commitments to any of their services.

90. I am sorry, I do not see what this has got to do with the manufacturing industry.
(*Mrs Sharp*) I think that if government sets an example by being long-term in its own strategy—in its own thinking in making forward commitments—that this helps to give industry the notion that you are looking long-term and planning strategically, which is the problem for British industry.

91. Have you said this to industry leaders?
(*Mrs Sharp*) Yes, I have.

92. Do they agree with you?
(*Mrs Sharp*) Yes, I think quite a lot of them do.

93. They would like local government and businesses to be equal priorities for change?
(*Mrs Sharp*) I think a lot of businesses would like to see a much longer-term basis in relation to contracts with local government.

94. If we are talking about the manufacturing industry, that is not really the case.
(*Mrs Sharp*) I think it applies to industry across the board, because it applies also to service industry.

[**Sir Cranley Onslow** *Cont*]

95. You see no difference between the manufacturing and service industry?

(*Mrs Sharp*) I think the distinction is increasingly blurred.

96. Do you think it should be?

(*Mrs Sharp*) Services depend upon a strong core of manufacturing, but a lot of what we do in manufacturing today, for example, in the whole business of using computers, is on the border line between what we would class as being service industry and manufacturing industry. I think it is arguable that this is a distinction that is becoming anachronistic.

97. Do you think that would help manufacturing industry to innovate?

(*Mrs Sharp*) To do what?

98. To innovate.

(*Mrs Sharp*) Yes I know, but what would help?

99. The change you are talking about.

(*Mrs Sharp*) To have central government trying to set longer term decisions? Yes, I do, because I believe it would, as I say, set an example of long-termism. You asked me—that is one example I give. I also believe that government should (and I think this is something we shall quite likely be seeing in the White Paper from Mr Waldegrave this afternoon) establish an element of looking forward—a foresight exercise. The Japanese have this five year exercise on establishing their vision conducted by MITI does it. It is done in consensus. MITI does not sit there and develop its own vision—the young bureaucrats in MITI go round and talk intensively to industry. It is almost like what is called a "Delphi" exercise of finding out what people think and out of this comes what is very much a consensus in Japan as to where they would like to see the country going. I think the advantage of this is that for both industry and government there is a longer term look at the threats and opportunities that are there and where they might be going: a feeling of looking forward, as I say, instead of just standing on the spot and wondering where you are going.

100. Do you seriously think we could adopt a Japanese culture in this country?

(*Mrs Sharp*) No. Each country has to evolve its own culture. Institutions play a very important part in that, and I think there are ways in which we can probably help institutions to change that which might help us to change our culture over the longer term.

101. What about the fiscal environment?

(*Mrs Sharp*) As I have indicated in my paper, I think this is another aspect where the recognition of the interplay between the macro and the micro economic factors can influence things for the better if we wanted them to: by recognising that, if you act short term in macro economic terms, it will have an effect upon your micro economic objectives. If we want to achieve (and I think these are important things to actually focus on) those micro economic objectives and the supply side objectives, we have to make sure the macro economic climate as one that is conducive to achieving them.

102. Putting it simply, would you say tax incentives encourage investment in innovation?

(*Mrs Sharp*) I think tax incentives encourage investment. We have seen that. You have to be very careful: we had for a long time tax incentives that encouraged highly capital intensive investment. One of the problems is any incentives involve some element of distortion. We had some years ago tax incentives to encourage research and development. Already research and development is written off 100 per cent. as an expense in company accounts in any case. The argument is that if you introduce extra tax incentives for research and development you will get a lot of research and development that is not worthwhile because things get distorted. I think that is right. I nevertheless think that the experience (and I think particularly here about experience in America which has recently been re-evaluated by the National Bureau of Economic Research and found to have had a major effect upon accelerating the proportion that companies devote to research and development during the 1980s) means I therefore come down slightly reluctantly to the view that for the moment so much do we need to encourage industry to put money into research and development that this would be one tool we could use.

Chairman: Can I move on to the international aspects as well?

Dr Hampson

103. Can I just check one thing before you do concerning one of the statements you made: there is no positive correlation at all, is there, between the level of distribution of profits and the level of research and development? Some of those that have been most generous have the highest levels of research and development expenditure.

(*Mrs Sharp*) In Britain, if we take the proportion of distributions to research and development, the ratio of—let me just read you the wording to make sure I get it straight - "For the top ten British companies the average ratio of expenditure on dividends to that on research and development is 1.45. Its equivalent in the United States is 0.4 and in Germany 0.15 and in Japan 0.11. In 1992 Britain paid out nearly 70 per cent. of post tax earnings in dividends compared to 53 per cent. in the United States, 30 per cent. in Japan and in Germany."

104. I do not think that proves anything, to be frank.

(*Mrs Sharp*) I think what it indicates is that we are putting a lot into profits and profit distribution and we are not putting very much into research and development.

Mr Ingram

105. I think it shows we are putting it into profit dissipation rather than distribution. Are you arguing the profits should be better targeted for the long term future of the companies rather than for the financial benefit of individuals who may invest?

(*Mrs Sharp*) Yes.

Dr Hampson

106. I think it is also the case that actually we have done rather better in industry financed research and development as a proportion of GDP which has been

[Dr Hampson *Cont*]
steadily going up and we have now moved into fourth place.

(*Mrs Sharp*) Yes, but if you look at my table 4 here which is taken from the Innovation Advisory Board, during the years 1985 to 1988 which were the years of boom in industry, and you look at the increased spending in research and development, yes it went up but it went up almost entirely in chemicals and pharmaceuticals. If you take that out—

107. Yes, but if you do the same sector analysis in other countries—this is why I object to your approach—it is an overall better figure than in France or Italy and there is also the same sectoral distortion which you are not prepared to indicate so it is not an effective academic comparison.

(*Mrs Sharp*) But quite frankly, why do we set our sights on France or Italy?

108. You are wanting to make a particular case and seizing on statistics which suit you.

(*Mrs Sharp*) No, we are anxious in this country to increase our rates of growth. We are looking at countries like Germany or Japan which have been very successful in terms of their industrial growth and it seems to me that we ought to be setting our sights on these sorts of countries rather than on France.

109. Which ones in particular?

(*Mrs Sharp*) Well, as I say, both Germany and Japan. In both these countries if you are looking at the competitiveness of manufacturing industry, there is no doubt that manufacturing is competitive and has held its share of gross national product whereas in this country manufacturing has decreased its share of gross national product from approximately 30 per cent in 1979 down to close on 20 per cent today—a very considerable reduction.

Ann Coffey

110. Looking at your tables and the comparisons you have made on these seven countries, although you mention in the memorandum that we are being squeezed between high-skilled countries and countries with very low wage costs, if you had produced tables looking at, say, countries like Taiwan and Korea as a comparison, what would have come out of that, do you think?

(*Mrs Sharp*) We have seen them investing in a very high proportion of GDP in research and development and industry there has also actually put a lot of its own money into research and development. We have also seen them investing a great deal in skills and education. What is interesting about these countries is how very rapidly they have moved from being newly industrialising countries in the 1970s into being very nearly advanced industrialised countries today.

111. And you put that down to the dual factors of investment in research and development and in skills, do you?

(*Mrs Sharp*) I think this has been one of the features that is certainly true of these countries. Take the specific example of Korea in the semi-conductor area where it has been able rapidly to take over from Japan and is now the leading producer of the main memory chips which are known as D-RAMS. Now the fact it has been able to do this reflects the investment which it has been able to put in its own industry and the skills of people in that industry.

112. Can I ask you a question I asked previously of a witness who was saying that the problem of skills training was a very deep problem in our society? What do you think can be done about that, given the obvious financial problems?

(*Mrs Sharp*) I think the most important thing is to get all companies, large and small, recognising how important skills are. The difference between our culture and the German culture is that when a young person leaves school at 16 in Germany they automatically go through an apprenticeship, even if it is working in a flower shop. The consequence of this is that they get recognised qualifications. This is unlike the Japanese system that Professor Kay was talking about, where the qualifications are internal rather than external. Therefore these are, so to speak, sellable on the market. All companies, large and small, train, and when people leave a job you no longer get the question of "poaching", if you like, of skills. The problem in Britain is that very few companies actually invest in training. If you look at advertisements, for example, for technicians and so forth, always they want somebody with two to three years' experience and the appropriate qualifications—at somebody else's expense. The difficulty is that when you train somebody you invest a lot of money in them, but if you lose them you lose that investment. Increasingly, those companies who spend the money on training are saying, "It is not worthwhile my spending this money on training".

Dr Hampson

113. I am sorry, you cannot make assertions like that unless you can send us some evidence—with all respect—that companies are actually saying that and doing it. The amount of money being spent by companies on training is increasing, it is not that they are cutting it.

(*Mrs Sharp*) It has been increasing in the last few years, I think partly because of the reforms that have been introduced as a result of the TECs, which I think have helped. Traditionally, British companies have not trained. If we look at the whole issue of apprentice training, back in the mid1960s we had something in the region of 250,000 young men and women being trained as apprentices in the manufacturing industry; today this is down to 50,000. We have lost out, in those terms. I do hope the message on training is getting over—and I am delighted if this is so.

Ann Coffey

114. The presumption is that Taiwan and Korea are going to continue to be a low-wage cost country.

(*Mrs Sharp*) There are other countries, like Malaysia and the Philippines that are low-wage cost. If we produce, on the whole, at the middle to lower range of technology goods, which we are to some extent, then we lose out.

Mr Clapham

115. Would it surprise you to know that a statistic we were given last week was that half of the PhDs in electronics in all the United States universities are actually financed by the Taiwan Government for Taiwanese Nationals?

(*Mrs Sharp*) No, that does not surprise me, if I may say so. You should look at the number of people we have from Singapore, Hong Kong, Taiwan and South Korea doing PhDs in engineering in our own universities.

116. Do you consider, therefore, that government does have a duty to ensure that there is investment in skills and training?

(*Mrs Sharp*) Yes. Again, I produce here the table from Professor Prais. I notice he has just come out with yet another report on the same issue as here. Our problem is not, quite frankly, that we are not producing the top level of scientists and PhDs; it is at the technician and the craftsman level where we lose out vis-a-vis these other countries and where we have to put more emphasis on training. This is where the TECs come in, and this is where it is vitally important that companies work co-operatively with TECs. I think TECs are a decentralised organisation involved with local industry and good innovation, but they have to have enough resources. With all due respect to Dr Hampson, yes, money has increased on training, but the proportion that was being devoted to training was so incredibly low—we were devoting such an incredibly small proportion of pay roll to training, compared to other countries; something like 0.05 per cent compared to 3-5 per cent.

Chairman

117. Even with that, is it not true that you can use these fairly wide phraseologies such as "training", and you do not actually start quantifying that? Would you subscribe to the point that was put by one of our witnesses from the aerospace industry that it is very easy to get five or six hairdressers from the TECs but it is very difficult to get an engineer?

(*Mrs Sharp*) Yes, I think we do need to look at what sort of training. I am much more concerned that we should turn out people with qualifications. There is, of course, through the NVQ, an assessment of levels of training.

118. How would you approach it in terms of saying what are the manpower skills required over the next period? The TECs do not do that—partly because they have not got the resources. Do you believe there ought to be—like Holland on the Manpower Services Commission used to talk about—a strategic approach to the planning of skills over the medium to long term?

(*Mrs Sharp*) I think insofar as one is developing something which is looking longer term—a foresight exercise of some sort—it does help to identify areas where we are likely to have skill shortages and skill needs, and to try to channel training into those particular areas.

Dr Hampson

119. How does Italy—for heaven's sake—fit in, with substantially lower proportions of their money going on R&D? They have much less innovative capacity and yet they are one of the three most successful economies in recent years?

(*Mrs Sharp*) Whether you can trust those statistics as success, I am not sure! One of the incredible things about Italy is that they have made success out of what everybody regards as being the low-technology, slow-growing industries—textiles. We could do this, if you like. We can become a country of tourism, of Harris tweed, china pottery. We could do! If we wanted to, we could do perfectly well in it. It might provide us with the income we need. We are fast going that route. What is true is that Italian shoes are much better made than British shoes; Italian handbags, Italian leather, Italian fashion has a cut and a sweep. One of the problems was that when British clothing producers wanted quality cloth, they could get it from the producers in the Po Valley, but they could not get it from British manufacturers. There was not the response there.

Dr Hampson: But why should we aim to match the most high-tech, leading edge countries? Why should that be our goal?

Ann Coffey

120. We want to be the best!

(*Mrs Sharp*) In the end we shall muddle through and do what we want to. What I think is sad, at the moment, is that we are actually seeing relatively low rates of growth overall. There is, in this country, partly as a result of this, very considerable competition for those resources. There are many things that many of us would like to do, such as seeing a better Health Service and better Social Services, which we cannot afford to do at present.

Mr Clapham

121. On page 3 and 4 you have listed a multi-faceted supply side programme, in which you then list six parts. Are there any parts of that programme which you wish to be a priority?

(*Mrs Sharp*) I think undoubtedly the education and training side. Again, a point which Professor Kay was making, which comes out of the work of Professor Prais at the National Institute, is that we must improve, above all, skills in numeracy.

122. What would you say to those people who say we have got a £50bn deficit, we cannot afford the money to put into education and training?

(*Mrs Sharp*) My reply to that is that for too long we have treated it that way round. It is putting the cart before the horse. In this instance, unless we improve fundamental education and training in this country we cannot hope to increase income.

123. So you would see investment in education and training as a way of breaking out of short-termism?

(*Mrs Sharp*) I do not know that it is necessarily a way of breaking out of short-termism because I think that requires a change in institutional frameworks of the sort, that Professor Mayer was talking about earlier. It is a start but I think there are many other aspects here of changing institutions and, to some

[Mr Clapham *Cont*]
extent, changing attitudes, that we have not tried to begin to get through.

124. Do you think—just looking at education for a second—that the German model where there is an intermix between the academic and the vocational is the way that we ought to be going, rather than concentrating specifically on the TECs?

(*Mrs Sharp*) Yes. I think what I would like to see is everybody taking training extremely seriously; all public bodies setting aside a certain proportion of the pay roll to go into training, and this to be echoed, if you like, in private industry. There are some good industries—the investors in people do precisely this. At the moment this is very voluntary, and I think there is a case for going back to the old system that we had with the EITB; the French do it, they have what is known as a remissible levy for training. If a certain proportion of the pay roll is not spent on training (and in France it is 1.5 per cent.) then basically the firm is taxed to that degree and it is, so to speak, put into the public training purse. In fact, of course, most firms put money into a kitty for training and as a result of this the French have actually transformed their system in the course of the last ten years from what it was before that.

Ann Coffey

125. When I challenged my local TEC about the number of engineering placements they were providing, they said that there is no demand from young people to be engineers. What would you say about that?

(*Mrs Sharp*) One of the problems here is that maths and science are often seen as being more difficult in schools than other subjects. This is, I think, one advantage of the national curriculum—that it does force students to do this until they are sixteen. I personally would like to see us broaden out the 'A' level syllabus so that everybody who stays at school until eighteen (and I think this should be the objective of this country—that people should stay in educational training until eighteen or nineteen) has some element of technical or mathematical and technical training through that period. I think another problem that one has is this whole issue of the young people leaving school at sixteen, and being able to get jobs in areas such as garages without any training. Those who want to do a training in motor mechanics face a long apprenticeship: it is a difficult apprenticeship. It involves them giving a lot of time going to the technical college: it involves the employer giving them time off to do training courses to acquire the qualifications they need. If they can actually be paid a higher salary for just taking a general job, an unskilled job in the garage doing little bits of things, learning on the job, then they often prefer to do this. I think unfortunately many young people are dissuaded from pursuing training courses for that reason.

126. Do you think manufacturing in general has no status? Do you think that is part of the problem for young people making choices to go into manufacturing—that it is not something that is necessarily regarded as having status?

(*Mrs Sharp*) It varies a great deal. It depends what sort of company it is. If you are in an area like Nottingham, where you have got Boots, working for Boots is regarded as being a good thing to do. I think it varies a lot, and I do not think that there is a general down on manufacturing.

Sir Cranley Onslow: Once upon a time there were a lot of women working in factories during the war—

Ann Coffey: Exploited, abused—working in factories for low wages!

Sir Cranley Onslow

127. Mrs Sharp, your answer to Ann Coffey was that you despaired of encouraging women to go into manufacturing industry.

(*Mrs Sharp*) Do I?

128. You do not talk about them going into garages.

(*Mrs Sharp*) No. I have been one of those who have been very anxious indeed to see women move into apprenticeships in areas where they have not traditionally taken apprenticeships and I have worked, for example, peripherally with organisations like "Women in Science and Engineering".

129. Have you talked to Rolls Royce about this?

(*Mrs Sharp*) I have not.

130. Well, they gave us evidence that they would like more skilled women in their employ.

(*Mrs Sharp*) It is a question of encouragement on both sides. One of the things I would say to Rolls-Royce, if they did talk to me and told me that, would be "Do have link ups with some local schools? Invite some of the sixth formers in for a short time—for a week during the summer holidays—to see what people do".

131. Do you think you might take the initiative in talking to Rolls-Royce?

(*Mrs Sharp*) I could certainly do so, yes.

Chairman: In the last MORI poll that came out on the expectations of young people coming out of schools the media was right at the top, then it went down to accountancy, and then it came down right at the bottom to manufacturing, but the last one you may be interested to hear, was a tax inspector! Thank you very much for coming this morning.

Memorandum submitted by Dr Kirsty Hughes (MC 7)

1. The current competitiveness of UK manufacturing industry must be assessed using a variety of measures. Measures of competitiveness fall into three categories: measures of efficiency (eg productivity, unit labour costs); measures of market share (eg export market share, net trade balance, export-sales ratio, import penetration ratio); and measures of non-price characteristics of specific products (eg quality, number and type of characteristics etc), These measures may be considered as levels or trends. Competitiveness is a relative

concept —whether the comparison is over time or relative to other firms, sectors or economies. Market share measures depend on both efficiency and on market power. They are, therefore, related to efficiency measures but not identical to them.

2. These measures do not give identical answers as to the competitiveness of UK manufacturing industry. Focusing on three of these demonstrates this:

— productivity: productivity levels are, in general, below those of the UK's main competitors; however, the fast rates of productivity growth in the 1980s means that the gap with competitors has narrowed;

— Net trade balance: this became negative in 1983 and deteriorated subsequently. It improved in the 1990-92 recession, but, unprecedentedly, remained negative.

— Export Market Share: this fell to the mid-1980s but recovered and improved in the late 1980s.

The net trade figures indicate serious problems with respect to UK competitiveness during the 1980s. The productivity and export figures indicate some improvement during the 1980s. This may partly reflect improved performance of a smaller sector. This is considered in table one.

3. Table one indicates various key aspects of UK manufacturing in the 1980s:

— Measured from peak to peak (1979-89), the absolute size of manufacturing is still less than in 1979, reflecting the severity of the 1980-81 recession;

— Imports recover from the 1980-81 recession by 1983, and subsequently grow by over fifty per cent.

— Exports suffer badly in the recession but exhibit a high rate of growth subsequently—lower than the rate of growth of imports, hence the deterioration in the net trade balance;

— UK-based firms are supplying ten per cent less of the domestic market, in absolute terms, in 1989 than in 1979.

Table one: Rates of Growth of UK Manufacturing (percentage)
(1985 = 100)

	Exports	*Imports*	*UK-based firms' domestic sales*	*Total Production*
1979-1990	24.2	50.6	-13.9	-6.4
1979-1989	18.7	56.5	-9.6	-3.8
1983-1989	39.0	55.7	13.7	19.0

Source: Annual Abstract, National Income and Expenditure Accounts

4. These figures raise various important questions about UK competitiveness. When UK firms compete with foreign firms (imports) in the domestic market, they are doing badly—even in the period 1983–89, the gap in growth rates between domestic supply to the domestic market and imports is over forty percentage points. Yet exports are doing relatively well, not only in growth rates but in share of world markets (by the end of the 1980s).

There are various possible explanations for these apparently contradictory figures. One important potential explanation is the level and balance of intra-firm trade undertaken by multinational enterprises (MNEs). This trade accounts for 30 per cent of manufactured exports, but there are no detailed breakdowns. Further explanations would include: differences in international and domestic demand patterns; different income elasticities for exports and imports; and growth of intra-industry trade. One final explanation would be that UK manufacturing is no longer specialised in certain fast-growing areas, but is competing relatively strongly in the particular areas where it remains specialised. It is clear that the competitiveness of UK manufacturing is now as much a question of absolute size of the sector as of levels of performance.

5. While the reduction in the absolute size of UK manufacturing is a result of the 1980–81 recession, this recession also acted as strong pressure inducing improved performance from firms. Various studies have assessed the causes of high productivity growth in the 1980s. The most robust result is that sectors that suffered the most in the recession, subsequently had the highest productivity growth—the recession acted as a "shock" effect for both workers and managers. However, while the "shock" effect had a positive productivity effect, it appears to have had a negative effect on net trade—sectors that suffered most from the recession had worse trade performance through to the late 1980s (taking into account other determinants of performance).

6. Foreign multinational enterprises located in the UK on average perform better than UK firms, even once an adjustment for size of firm and sector is made. The foreign MNEs exhibit higher levels of productivity, higher profits and wages and higher investment levels in the 1980s. Various potential explanations exist: better management; better organisational structures; better technology and product characteristics. The effects on

UK firms are various. They may increase competitive pressures (though they tend to be in highly oligopolistic industries) and so improve performance of UK firms. At the same time, they may be less integrated into the economy and so provide fewer networks and stimulation to suppliers than domestic firms.

Manufacturing is increasingly internationalised—trade is dominated by UK and Foreign MNEs. This internationalisation has important implications for the analysis of competitiveness and for policy. In particular, it breaks the link between competitiveness of firms and competitiveness of an economy, since MNEs will have an international not a domestic strategy.

7. UK manufacturing trade performance and competitiveness relative to its main competitors—the US, Japan, Germany, France and Italy—has consistently been identified as a problem of non-price competitiveness (quality, reliability, other product characteristics, product differentiation, user-supplier relations and other factors). Many underlying factors have been identified that may explain this poor performance. While some explanations focus on one factor, more convincing explanations identify a range of factors. Particular stress has been placed on skills, innovation, and management, and on the institutional factors underlying these.

These three factors certainly have a role in determining trade performance, together with other factors including: MNE presence, scale economies, competition and marketing. While the UK retains relatively good skills at the professional and technical level, there is substantial evidence that the UK workforce is generally underskilled compared to its main competitors. There is also concern at the general level of management skills, particularly at middle-management level. Weaknesses here may be a key element in the general pattern of poor non-price competitiveness. This is also likely to be related to weakness in innovation. Innovation weaknesses should be recognised as weakness of the whole innovation process, not specifically of the level of research and development. Furthermore, they are only one aspect of non-price competitiveness.

8. Despite the many arguments that the UK is weak in terms of R&D, this is not supported by the evidence. The UK remains the fifth largest performer of R&D and business-funded R&D has grown since 1983. This does not suggest serious barriers from short-termism. This R&D can draw on a substantial skill-base produced by UK universities. For its general science base, it must draw on science internationally—suggesting that arguments that UK scientific research should focus on strategic or selected areas of future importance are misjudged. To the extent that there are problems of innovating successfully from R&D, these problems must be solved before increased R&D can be successful or appropriate. The UK is also in a position to gain substantially from imitation.

9. A focus on high technology sectors is not a recipe for competitive success. Of the largest six advanced industrial economies in the 1980s, the three with the most successful trade performance were Japan, Germany and Italy, with relative specialisations in high, medium and low technology respectively. Innovation is one ingredient for competitive success, but this applies to all industries and not only the "high-tech" ones.

10. The completion of the Single European Market may have various effects on UK manufacturing industry. The European Commission itself carried out a study of which sectors were likely to be most "sensitive" to the internal market. These are sectors where the US, Japan and Germany perform particularly strongly. They are also sectors in which the UK has a relatively strong export specialisation. The UK may suffer from the increased competitive pressures anticipated in these sectors.

25 May 1993

Examination of Witness

DR KIRSTY HUGHES, Head of Industrial Policy Programme, Policy Studies Institute, examined.

Chairman

132. Dr Hughes, we are very sorry we are a little late, but thank you very much for coming this morning. Thank you for the memorandum that you sent to the Committee. Could I start by asking you this: you explain in your memorandum in paragraph 6 that increasingly competitiveness of an economy is no longer linked to the companies themselves but is international. Could you tell us the main ways of increasing the competitiveness of an economy rather than that of a company?

(*Dr Hughes*) Well, I wish I could! No, I cannot, but I think it is a crucial question that is only just beginning to be even asked, let alone answered. Perhaps if I can briefly re-cap some of what I said in the paragraph, what we have got in this country (as in many other countries) is increasing internationalisation of markets, of firms, of whole sectors, and the presence of multinational enterprises in economies does break the direct link that we normally presume between competitiveness of firms and economies—if we can only sort out the competitiveness of firms in an economy or they can only sort it out for themselves then we will have a competitive economy. Once you have got firms who are planning not in terms of a particular economy but globally, then they will behave differently. A particular plant in this country will behave differently if it is part of a whole multinational than if it is a separate plant, so you break that direct link between firms' competitiveness and countries' competitiveness. That is not to say there is not a link—it is just to say it becomes much more complex.

133. How much influence can government policy have on manufacturing competitiveness and in what areas would that fall?

[**Chairman** *Cont*]

(*Dr Hughes*) That is an enormous question. That is to ask about all of competitiveness.

134. That is the question this Committee is trying to answer!

(*Dr Hughes*) I think I would split that into two parts and that is what I was trying to draw attention to in my written memorandum. There is an issue in this country now about the overall size of manufacturing as much as about the level of performance of particular sectors or particular firms. On the one hand the question is what government can do, and secondly, it is should government do anything about the overall size of the sector, the absolute level of activity, because at the end of the day presumably that is why we are interested in competitiveness—we are concerned with absolute activity, employment, wealth, income—but then there is a second area which is what seems to have been focused on so far in the discussions I have heard today which is to do with specific aspects of performance of firms' competitiveness. If you want to talk about that later on then you are going into a whole series of detailed policies and arguments about whether we have a skill problem, an innovation problem, can government do anything about that, should government just provide the infrastructure in terms of educational skills, transport, and communication or can government do more specifically to influence the policies of firms. On the broader macro question there is immediately a problem that demand management, the old-style Keynesian demand management, is very problematic at least within one nation, though the EC is still looking at ways of trying to promote growth and stimulate jobs and so on. So I think it is quite difficult to do something about absolute size, but it seems to me that that should be something for government to at least consider because absolute size of a sector is not what any particular firm addresses. Faced with the problems of Keynesian demand management I think you have got to look at specific regional and structural policies as well as perhaps EC wide policies, rather than just saying "Let us go back to traditional Keynesian demand policies."

Dr Hampson

135. Do you think it is a desirable thing to have a particular proportion of your GDP from manufacturing? Should government be seeking to enhance the overall capacity of manufacturing?

(*Dr Hughes*) No, not per se, but I do subscribe to the argument that manufacturing remains important because of its effect on the trade balance. If you want to have a successful growth record it is important in the medium run to have a healthy balance of payments. At the moment that still comes, largely, from the manufacturing sector. You have got a very serious deficit on the balance of trade and on the balance of manufacturing; in particular it remains negative during this recession, which was the first time we have ever had a negative balance of trade during a recession. That seems to me to be a problem to do with the absolute size of the sector, not so much, in fact, to do with performance. I think that is probably a slightly maverick view, but I think this absolute size point is only just beginning to come to the fore.

136. Would you say there was something of a myth about the British manufacturing tradition? We were a successful manufacturing nation when we had a great empire to flood our products into. Since we have lost that, if you look at the figures, there has been a direct correlation between that and our decline. However, we still have certain abilities, in that we can sell fairly well into Germany. If everything was as bad as some people have tried to argue to us today I am not sure how that would be possible. You make the point, I think, that the real problem is we cannot compete in our own market. What is the reason that we can actually sell effectively to Germany but we cannot, across the board, improve our own position domestically?

(*Dr Hughes*) To comment on what you said at the beginning, I think it is true that there is too many myths about British manufacturing, and poor British performance, and they go back, as you know only too well, 100 years in some cases, in terms of some explanations. I think it is just more complicated than that; it is not a question of going to the other extreme and saying British manufacturing is okay, it is to say "Look, people were making some of these arguments earlier this Century, but we have still got a manufacturing sector, and we have a manufacturing sector that is exporting to other advanced industrial countries". So let us, perhaps, for some of the time at least, turn the question round and say "Why are we still successful" rather than just saying "Why are we doing so badly". Then you say "What is the reason we are doing so badly in the British market but we are doing well in the export markets?" I presented those figures (I think they are important, although they are very puzzling) and I suggested a series of potential answers, but I have not yet done the work—or, to some extent, there is not the data—to give the exact answers. Going back, for a moment, to the question of multinationals, I suggested that one part of the answer might be to do with the extent of trade within firms; that multinationals carry out a huge amount of intra-firm trade. We have very few statistics on this. We know that about 30 per cent of manufacturing exports in this country (and also in the US) is trade within firms. We can only guess that it is a similar amount for the import side. So we have this great interest in manufacturing, partly because we are interested in the trade balance, and that trade balance is dominated by multinationals; they are responsible for virtually all the exports but about a third of that is going to their own subsidiaries or other plants. Whether that is part of what was happening in the 1980s I do not know, because we do not have that data, but it is certainly possible that you had imbalances in intra-firm trade partly, perhaps, exacerbated by the fact that after the 1981 recession you had got this small manufacturing base. I have certainly done some statistical work, but only for foreign multinationals, and there is some evidence that foreign multinationals in the 1980s were actually associated with the deterioration in the net trade balance in the sector which they were in. That may not be their fault, although some people say it is their fault because they are pulling in more imports than they are exporting, but it may be that they are in sectors where United Kingdom competitiveness is deteriorating. So there are two possible answers there. So that is one possible answer. I think, to some

[**Dr Hampson** *Cont*]
extent, you would expect it, because there is an increasing trend to have what they call intra-industry trade between manufacturing economies. There is a lot of product differentiation going on, and lots of new products going to and fro across borders and consumers looking for more differentiated products. So to some extent you would expect it. You could also argue that it is part of the traditional analysis of British weaknesses, which is that because of the non-price weaknesses in British manufacturing there has been a tendency for the import income elasticity of demand to be higher than the export. So there are a series of arguments that would lead you to expect some of that, but I think it is the extent of the difference in the domestic market relative to the relative success on the export side, especially the decline in the export share; you have this extraordinary reversal, in the long run, of a decline in the export share, even from this smaller absolute manufacturing sector. I thought that very puzzling. I think the final explanation I give is differential specialisation.

137. In other words, we should not aim to be a manufacturing nation, per se, we have to decide in which of the sectors in manufacturing we actually have the quality and the expertise, and those are the ones we can build on and do well in.

(*Dr Hughes*) Possibly, but if I am right that that is an explanation of these particular figures, it looks problematic, because although we are doing well in export markets the imports are coming in at a greater rate. So we may be specialising in the areas where we are good, and that is why we are expanding our export share, but it would seem that they are not *the* fastest growing ones.

138. When we look at the decline, you might reflect on why we have had such a dramatic decline in, let us say, the consumer goods area. Is one of the key elements quality of management, in terms of the non-price factors, in terms of design quality, and the rest of it, which allowed us to fall behind and lose our position? One assumes you do not feel we should go back, or attempt to go back, into those areas.

(*Dr Hughes*) I think you have got two contradictory elements going on. What happened at the start of the 1980s was, on the one hand, a fairly devastating recession in the sense that that was primarily responsible for the huge contraction of the manufacturing sector and imports fell sharply during that recession, not unlike this recession, but by 1983 imports were back up to their 1979 level but domestic production and output was not. So you have got that happening, without going back, anyway, to the non-price arguments. What you have then got, which I think is interesting, is that the recession, despite that sort of devastation, had a positive effect. It shook up very strongly the perceptions of the firms' managers and workers that were remaining. That has come out in a series of different studies on the so-called "productivity miracle" of the 1980s. That is a persistent effect, it is not just an effect of coming back out of a recession. It went through to the end of the 1980s.

Chairman

139. Was that happening elsewhere in the world? Was that happening in Germany, France, America?

(*Dr Hughes*) I am not aware of any evidence of that. They did not have the same depth of recession. They had recessions in the early 1980s too, but not the same as the British.

140. Did they have the same shake-up?

(*Dr Hughes*) No, not to the same extent.

141. Why were there differences?

(*Dr Hughes*) I think because the British recession in the early 1980s was, to a considerable extent, provoked by an over-evaluation of the exchange rate, which weakens the export market and not just the domestic market, in a way that did not happen in other countries.

142. That was because of the impact of North Sea oil?

(*Dr Hughes*) Some people say North Sea oil, some people say an over-tight monetary policy, or a combination of the two.

Dr Hampson

143. Is one of the factors medium-sized firms, and the lack of them, in this country? Is it that our biggest players are exporting effectively, but for production in the domestic market we have not got enough of the middle-sized companies?

(*Dr Hughes*) It is possible. Certainly exports are dominated by large firms. On the other hand, you also had a sharp growth in the presence of small firms in manufacturing during the 1980s, and there is some evidence that that had a pro-competitive effect within sectors, and also increased productivity.

144. Do we miss out by focusing at each end? Is there a case for a medium-sized business policy rather than just a small firms policy?

(*Dr Hughes*) I am not aware of any evidence that it is the medium-sized ones that are the particular problem, except—going back into the R&D/innovation discussion—that I subscribe to the view that it is not the level of R&D per se that is the problem. One of the characteristics of R&D in the United Kingdom is that it is extremely concentrated, there are just 100 R&D performers who do about 90, 95 per cent of manufacturing R&D. That is more concentrated than in America and Germany. That might link to a problem in the smaller firms, or possibly medium-sized firms.

Mr Clapham

145. Dr Hughes, if I could just take you to paragraph 8 of your submission, you say in the second sentence "The United Kingdom remains the fifth largest performer of R&D and business-funded R&D has grown since 1983." And then towards the bottom of the paragraph you say "To the extent that there are problems of innovating successfully from R&D, these problems must be solved before increased R&D can be successful or appropriate." How do you consider we could make that translation between R&D and marketable goods?

(*Dr Hughes*) I think the problem of research and development to innovation is precisely bound up

[**Mr Clapham** *Cont*]
with this whole problem of non-price competitiveness, and it is just one element of that. I think there is a tendency too much to focus just on innovation—to see it as a key problem and to see it as separate. What do we mean by non-price competitiveness? It covers a range of factors: product characteristic, quality, reliability, customer service, user-supplier relations and so on and a lot of that comes back to management ability, skills of the workforce, investments that have been made to organisational structure of companies and so on, so I think sorting out research and development to innovation is part and parcel of sorting out attention to non-price competitiveness and I would think the two big focuses must be management practice and skills, but probably primarily management.

146. Do you see much change in British industry in terms of management practices? For example, is there a sort of growth of "Japanisation"?

(*Dr Hughes*) Yes, I think there is. I think there are two—well at least two—interesting things going on. One is that you have got this tendency to so-called "flatter" organisations not just in the private sector but also in the public sector, and it has frequently been said that if there is a problem with British management it is a particular problem of middle management. Maybe we are going to have that solved almost for us by this trend internationally towards flatter organisations so that is one side of it. The other is that yes, I think there is some trend towards "Japanisation" or whatever you want to call it; that there is more focus on things like total quality management, team work, task-driven work and that that may well be part and parcel of the explanation of increased productivity, increased export performance towards the end of the 1980s.

147. Just finally at the bottom you say "The United Kingdom is also in a position to gain substantially from imitation." What do you mean by that precisely?

(*Dr Hughes*) I think the United Kingdom is behind the world leaders. As was coming out of the discussion earlier, there is this question of whether it may or may not want to be up with them, but it is certainly behind United States, Germany, Japan and even France. Rather than to do another British attempt at leap-frogging to get right up there, there is a huge amount to be got from looking at other countries and imitating. Now, that requires skills and research and development, but nevertheless it is a more straightforward process than being a world leader on the leading edge.

148. So you are saying we should be strengthening some of our weaknesses rather than indeed just concentrating on those strengths that we have?

(*Dr Hughes*) Yes, and if you take Japan in the 1960s, it came from behind through a huge amount of imitation.

Chairman

149. Could we follow that on inward investment? Do you believe that inward investment of the nature that we have just been describing in terms of Japan and so on is actually improving the competitiveness of British industry in its totality, rather than just of specific companies?

(*Dr Hughes*) I think we cannot talk about inward investment as a whole. We have got a huge stock of foreign multinationals in this country, and we should remember that Japanese ones are still a very small proportion of that stock. They are about 6 per cent. American ones are about 50 per cent. very roughly. As I mentioned in my note, there is strong evidence in the 1980s that these companies—overall and by sector—have slightly higher performance—better performance.

150. So that is those individual companies that have come in and invested. The question I asked was does that have an impact on that sector?

(*Dr Hughes*) Yes, I was coming on to that. Does that then have an impact? I think the arguments can go two ways. On the one hand that ought to have a pro-competitive impact. If you have got other companies in your sector that have higher productivity, higher profits, and are paying higher wages, that ought to be a stimulus to compete and to come back up against those firms. On the other hand, I think that is potentially a problem and it comes back to this issue of internationalisation—that foreign multinationals may have weaker ties within the domestic economy. Especially in their earlier years they may bring in a lot of imports and input from overseas which comes back to the trade balance issue, and there is also a whole amount I think of more informal networking and transfers between companies that goes on and some evidence perhaps that that can be weaker in foreign multinationals.

151. Is the threat that the indigenous companies could actually wither on the vine because of the inward investment in some of the areas you have described?

(*Dr Hughes*) Well, if they cannot meet the competitive challenge then they are going to lose market share. It may turn them round. I was talking to an IT director of a major company just two days ago and he was saying in fact what happens with some of these greenfield investors is it makes them look very differently at how they define success, because he said traditionally they look at various problems they have got of "history", as he called it, and they are trying to sort out incompatibilities between different plants and various problems, and success is sorting out those problems, but then they look at the greenfield Japanese investors and they think that is their starting point—not their success, and that success is something else out there, and they have got to turn round and see success as something out there not just as solving history, so in that particular example it is a case of there being a competitive stimulus.

Mr Clapham

152. In terms of domestic companies that have innovated, do your studies suggest that those companies that are unionised are more responsive to innovation than the ones that are not?

(*Dr Hughes*) I do not have any evidence on that, no.

Chairman

153. The point you are making in your paper is that foreign multinationals in the United Kingdom perform better. You have given one reason. Are there any other areas you can think of why those companies perform better than their counterparts in the United Kingdom?

(*Dr Hughes*) I think again, I have said already, half of them are American and American industry and productivity levels and technology levels are above those in the United Kingdom, and sometimes technology transfer from the parent company, transfer of management styles and structures—those sorts of things. I think perhaps one has to be slightly careful with these statistics as well: the statistics as I use them did demonstrate that—that there was a study at the end of the 1970s that showed the same thing and two economists then went and said "Ah, but these companies are not being matched exactly one with the other and if you match them exactly in a particular sector the relationships go away", so there is I think a question of that. But if you compare large British companies and foreign multinationals there is definitely a higher performance.

154. If you were to take the first five points and rate them down, would it be management? Would it be training? Would it be innovation coming from headquarters? If you actually had to list them, what in those first five points would you rate as being the most important factor in why they are more productive than the United Kingdom?

(*Dr Hughes*) I would think management, including in that organisational structures—ways of actually running the company, technology transfer.

155. Greenfield sites?

(*Dr Hughes*) Well, no, because these figures are for all foreign multinationals and most of them have been there a long time, so it is rather interesting you still find those differences, in fact. It would be less surprising if it was only for greenfield sites.

Dr Hampson

156. Have you got a figure to quantify the proportion or the amount of manufacturing trade imbalance which is due to foreign multinationals bringing into their own divisions products?

(*Dr Hughes*) No. This comes back to the point I made at the start—that we are lacking this intra-firm trade data which would be of enormous assistance in beginning to figure out what is really going on in the trade balance. When I say I had evidence that foreign multinationals had a negative effect on the trade balance, that was from a statistical econometric study that took into account things like research and development and looked at what the residual effect of foreign multinationals was and it was negative, but I do not have the figures to get up behind that and analyze further.

157. Are you likely to get those figures—the intra-firm figures?

(*Dr Hughes*) I am not sure if Customs and Excise would have them. I do not know where they get this 30 per cent. figure from. I believe that in the United States you now can get more disaggregated figures, so I think it must be feasible. Whether the single European market has made that more difficult again, I do not know.

Chairman: Absolutely.

Dr Hampson

158. So that figure of 30 per cent. of United Kingdom manufacturing exports is a Customs figure, is it?

(*Dr Hughes*) I am not sure of the source, to be honest!

Chairman: Where did you get it from?

Dr Hampson: I think it is in the witness's paper.

Chairman

159. That is right, but where did you get it from?

(*Dr Hughes*) It is the only figure I have ever seen quoted or used. I do not know my original source.

Chairman: You have no source. A good politician, obviously! Are there any further questions?

Dr Hampson

160. Just a most general one. You have specialised in comparative studies. When you look at other countries—Japan, Germany, France—and everyone talks, these days, again, about changing industry strategy, what are the key elements that you think you can see in others—a commonality of strategy—which we should be adopting and do not?

(*Dr Hughes*) I am not sure how much commonality there is. What is interesting is that what you have now got in Britain is a huge amount of discussion going on in the last year, or even six months, about industrial policy, about industrial strategy, and we have had a number of meetings and conferences with the PSI on that recently, and everybody agrees—the Engineering Employers' Federation and so on—that you should have an industrial strategy. Often they do not know what they mean, or they mean extremely different things. Some people mean "Let's get training a bit better" and other people mean "Let's have a strategic policy where we pick particular industries ... " and so forth.

Chairman

161. But there is a convergence of view. If one looks at what the EEF and the CBI put out, in a number of things there is a convergence of basic data, even in strategy, that is necessary to take it forward. I would not have said it was as widespread as you have explained. I think some of these documents are specific, not vague.

(*Dr Hughes*) I think there is confusion, but I think what you have got is the CBI and the Engineering Employers and so on, and various other people, who are basically saying "What we need is a policy that deals with infrastructure and with competition policy, and we cannot do any more than that, because we are in such an internationalised world anyway." An infrastructure policy means communications, it means skills and it may mean doing something about short-termism and so forth, but I think it does not mean much more than that.

162. That is not a bad start, is it?

(*Dr Hughes*) No, but there are other people who are arguing for a lot more than that, who are saying

[**Chairman** *Cont*]
"No, that is not enough. We can do more, we must do more, because of problems that are below that; on the one hand they are micro, on the other hand they are to do with the level of activity". So we need regional, structural, strategic policy, and it is no good just moving industrial policy to centralise it in the EC; it needs to be de-centralised. We need a local economic strategy.

Dr Hampson

163. There are no common lessons that you would highlight for us?

(*Dr Hughes*) From other countries? No, I think they are different. If you take Japan, Germany and France, there are more apparent, clear structures and frameworks there, and of course in the US there are not, which is always an interesting comparison to bear in mind.

164. What did your conference on the future of industrial competitiveness come up with? What were its main conclusions about our prospects?

(*Dr Hughes*) There was a reasonable amount of agreement on some things. There was agreement about internationalisation being an issue. There was some debate about innovation, but still the general recognition that non-price competitiveness remains an issue. There was concern about the trade balance—different views about whether you can deal with that through the exchange rate or whether you have to get down and deal with detailed non-price issues. There were these sets of views on industrial policy, that we need a strategy, but it may be this one here, the detailed one, or maybe the infrastructure one here—either, as I said, for political reasons or because of this belief that with internationalisation you cannot do any more than that.

Ann Coffey

165. Obviously there are different structures in all sorts of countries. Do you think that one of the factors in it is something nebulous called "political will"?

(*Dr Hughes*) I think that is an interesting question. One of the very interesting things, if you look at United Kingdom politics, for instance, in the last few decades, is what I would call the failure of NEDO. Why did that not work? Why did that not do very much for non-price competitiveness, because it is not so different from what some people are saying we need now, and it is not so different from things being identified in other countries that they are saying are desirable. It did not work. I do not know if that is lack of political will, but it is something that anyone talking about industrial policy has got to think about and have an answer to.

Chairman: There we must leave it. Can I thank you very much for coming today. Thank you.

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